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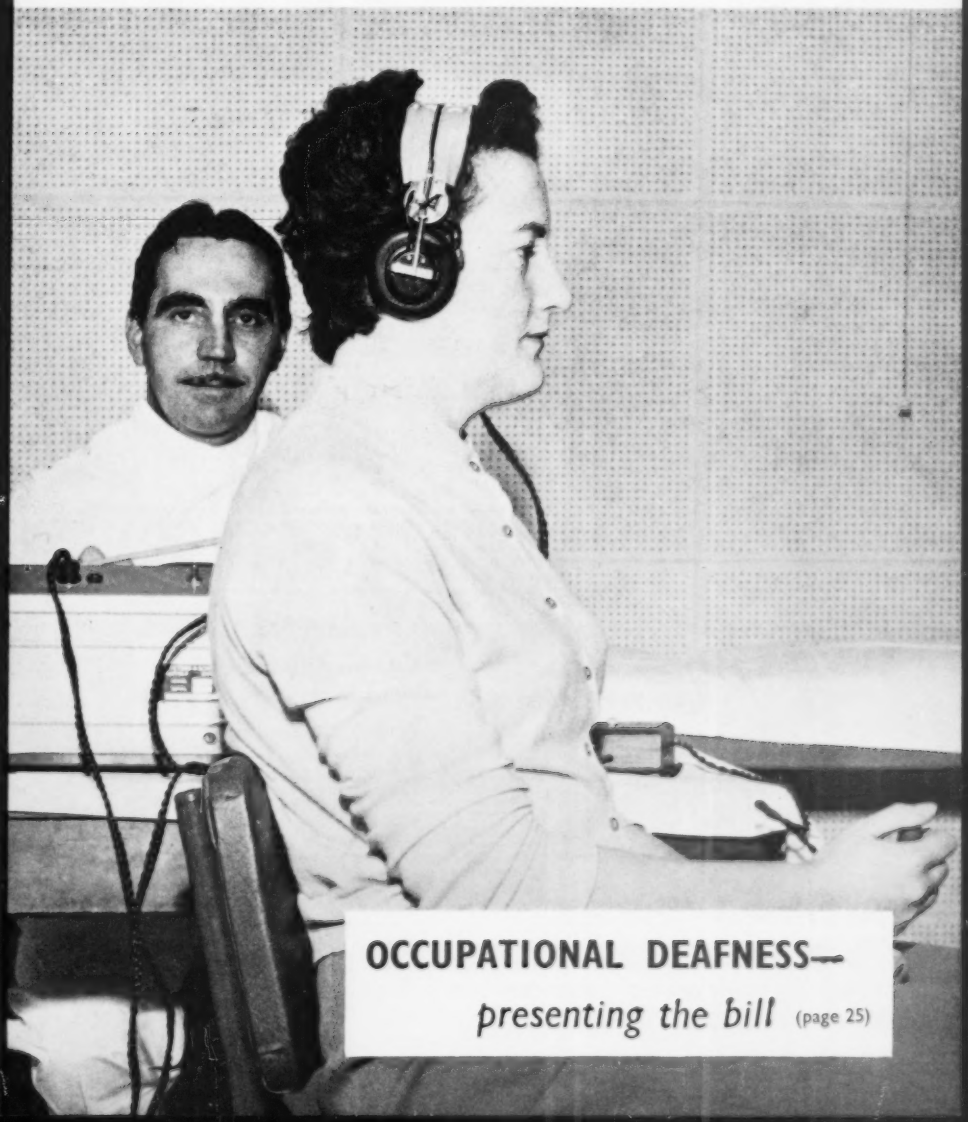

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presenting the bill (page 25)

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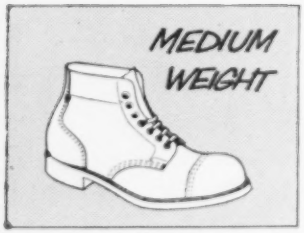

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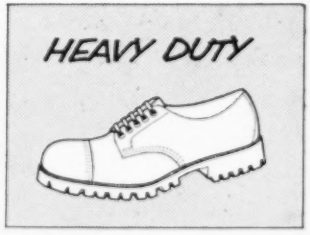

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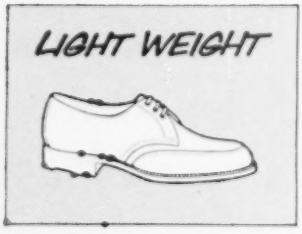

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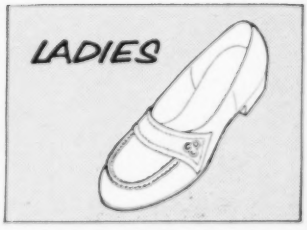

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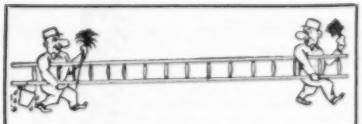

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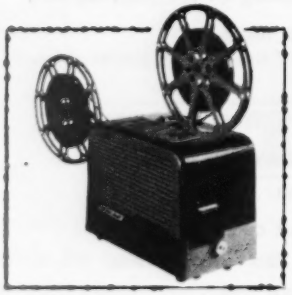

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MANAGEMENT DIARY FOR JUNE

BRITISH INSTITUTE OF MANAGEMENT

2 **Bristol.** Staff grading: why such a scheme is necessary, and outline of the principles of salary determination. Papers will be supported by case studies.

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23 "New thinking" luncheon.

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16 **Birmingham.** Industrial health: a survey of typical problems and contemporary thinking on various aspects of health and hygiene in industry.

INSTITUTE OF PERSONNEL MANAGEMENT
Branch meetings

29 **Slough Group—London Branch.** The office manager and the personnel function: talk by Mr. J. S. Cleaver, accounts office manager, E. Gomme Ltd., 7.30 p.m. Royal Station Hotel, Slough.

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13-July 1. Organization and methods.

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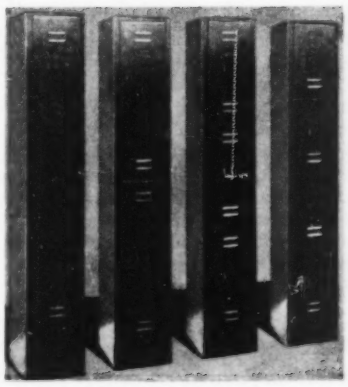

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PERSONNEL APPOINTMENTS

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Whilst graduate qualifications would be an advantage, the real need is for a man of sufficient personality, intellect, and breadth of experience to co-operate with management at all levels, and possessing the energy and drive to meet a tight schedule of requirements in the companywise application of a comprehensive policy. Personnel experience in the engineering industry preferred.

Whilst the initial assignment will offer exceptional experience in the fields of job specification and management appraisal, the Personnel Officer should be determined and ambitious enough to want to move into other fields in due course.

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Applications are invited for the above position. The Department concentrates on advanced work and research is expected.

Candidates should have good academic qualifications in a social science and experience in Personnel Management.

Duties include developing and organising courses, lecturing to managers and senior students, and using modern teaching methods such as the case study. Consulting work may be undertaken.

The salary scale is within the range of £1,370 to £1,550 per annum, plus London allowance of £38 or £51. The starting salary can exceed the minimum if the present salary is in excess of it.

A form of application, which should be returned within seven days of the appearance of this advertisement, may be obtained by sending a stamped, addressed, foolscap envelope to the undersigned.

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Further details and forms of application may be obtained from the Principal at Queen Alexandra Road, High Wycombe, to whom completed application forms should be returned as soon as possible.

News and Comment

OVER THE LENGTH AND BREADTH of Britain, we have failed to train those responsible for the delicate business of human relations in industry. You might have been startled to hear the Rt. Hon. Alfred Robens, M.P., former Minister of Labour, make this judgment at a recent I.W.S. 'New Thinking' luncheon. Nor did he spare the striker. He argued that the strike weapon is ineffective today: it does not damage managerial society as it used to. Managers still draw salaries, shareholders receive dividends —but the customer suffers. By damaging the customer, we damage industry. So it is the customer who dictates that there must be an identity of interests between managers and managed. By annual contracts of service for all workers, negotiated at the time of the annual balance sheet, the old division in industry would be abolished. He added that increments should not be calculated on a hit-or-miss basis: if they are, how can companies be expected to quote firm prices for the months ahead. Was Mr. Robens speaking only for himself?

IS A SUNDAY walk round an empty workshop the best means of assessing your employees' worth to the company? Mr. J. O. Sewell, general manager of the Yale & Towne Manufacturing Co., used this method to arrive at the conclusion that labour was more important than all other essential resources—shareholder investment, capital equipment, customers and suppliers included.

FIRST AWARD of the Urwick Medal—"for meritorious work in management studies"—has gone to a personnel officer, Miss A. M. V. Mortensen who, after seven years' practical work, is presently a senior member of the Industrial Welfare Society's Information Department. Her career has included personnel appointments with British Oxygen Gases Ltd., Beechams Foods Ltd., and the British Market Research Bureau Ltd.

LEADERSHIP is apparently not synonymous with good management. Rather than train managers, members of the Insurance Institute of London have been advised, by one of their number, Mr. F. E. P. Sandilands, to train tomorrow's leaders, because, he says, what is required is "better leadership, and the inspiration it provides, rather than better management."

THE 'BRISTOL EXPERIMENT' is the name of the prototype scheme by which teams of clergy, personnel managers, foremen and young working people attend school conferences for 'last term' pupils. It is typical of the

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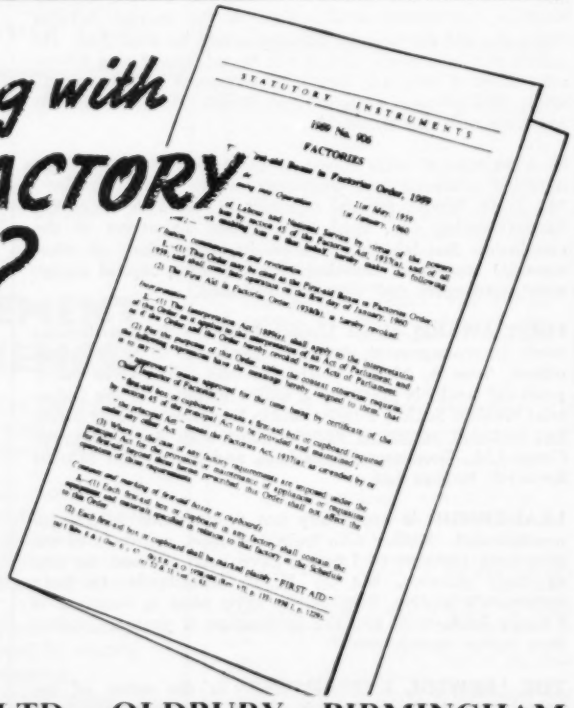

Revised regulations regarding First Aid in Factories became effective from 1st January, 1960.

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News and Comment CONTINUED

work of the King George's Jubilee Trust—its main object is to help 15-year-olds in the difficult transition from school to work—from which industry has benefited for a quarter of a century. The Duke of Gloucester has launched an appeal for an additional income of £110,000 a year so that the Trust can meet its responsibilities. Employers can now show their gratitude for the numerous non-vocational Trust courses for young people, which have made many better citizens and better workers.

CAN EMPLOYERS instil responsibility into young apprentices and operatives? If you think not, you should contact the United Steel Companies Ltd., and ask them why they continue with their week-end conference at Downing College for such employees. Why is it being held for the sixth successive year?

THE PRESS RELATIONS DEPARTMENT needs investigating—by personnel managers. The April issue of *Record*, official journal of the Transport & General Workers' Union, comments on the prominence given by the daily newspapers to industrial relations—"on its finance, economic soundness, on its politics and prospects. But almost never . . . any information about the prospects of advancement for a young man entering the industry as an unskilled worker; or the extent of labour turnover or the incidence of dermatitis; or the best factory lighting system for avoiding accidents due to eye-strain."

FIFTY THOUSAND SUPERVISORS are waiting to boost output, improve quality and reduce costs. These are the neglected fifth of British supervision who, according to Mr. John Wholey of Personnel Administration Ltd., are deplorably underpaid and underdeveloped. Only positive steps to select, train, consult and inform them will put them in their rightful place, as "the potential managers of tomorrow."

DAINTY ANKLES should be seen and not hurt. A poster campaign against the wearing of high-heeled shoes by women at work has been launched for a second year by the British Safety Council. They aim to reduce the damage caused to women's feet by the day-long wearing of 'unsuitable' shoes.

FIRMS EMPLOYING young people straight from secondary-modern schools should not be surprised if they are picketed by careers masters. Teachers may take up the plea, recently made by the new President of the N.U.T., Mr. S. W. Exworthy, for more careful administrative planning so that secondary school-leavers can be placed in employment at a single time in the year. Any opposition on organizational grounds has been anticipated by Mr. Exworthy, who points out that arrangements have already been successfully made for entrants from universities, technical colleges and grammar schools.

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Personnel Management

IN PRACTICE

CLOCK-PUNCHING has been dropped at the **Aspro-Nicholas** factory at **Slough** where 700 workers have been put on their honour since January 4 to be good time-keepers. The experiment caused a notable improvement in punctuality.

This successful experiment has prompted the Company—well known for their pain-killers—to remove permanently an old headache to many workers. Incidentally, without any reduction in basic pay, their working hours were reduced from 45 to 42½ at the beginning of this trial period.

It is pleasant to hear of a factory where it is considered demoralizing to punch the clock and, significantly, where there has never been a strike among its 700 employees.

★

WHEN **Mr. J. G. Banfield,** welfare adviser to **Waterlow & Sons Ltd.,** learns that an employee is due for retirement, he sends him a personal letter. He explains that the 'new pensioner' will still be regarded as a member of the Company and that after his employment ceases, he can always come back to the firm for advice on any problem he may encounter.

You may say that this smacks of paternalism and is old-fashioned. The Waterlow management have a different viewpoint. Many managers are too busy to be personal (in any way) these days and in the printing industry, where personnel managers are not numerous, there is a definite vacancy for someone who has time to take an individual interest in all employees in a firm. Mr. Banfield believes that the fact that there is a continuity of concern for the well-being of Waterlow workers is a good influence on recruits to the firm. Sincerity can flow both ways.

Several hundred persons with 50 years' service have retired from this Company and when they collect their final pay-packet, they know that the smiles are not strained and the handshake is no formality. For instance, former employees, as well as receiving regular copies of the house journal, have organized tea parties three or four times a year. Tours of their Finsbury factory have been planned for ex-Waterlow workers who did not enjoy such fine working conditions during their working lives.

★

THE PLESSEY COMPANY is certainly blazing a trail in further education and specialized training. A 21-year-old ex-apprentice from their Swindon factory has been selected for a six-month tour of America to study engineering techniques and production methods.

The young man, **Mr. Michael Church,** is a jig and tool draughtsman who will study the work of the Cummins Engine Company, Columbus, Indiana, and visit many of their sub-contractors. He was selected for the tour award on the basis of his first-class record as an apprentice and for the excellence of his subsequent work.

Mr. A. E. Underwood, resident director of the Plessey Company at **Swindon,** says that their present training policy provides for future tours of a similar nature.

★

MANY companies encourage parents of young employees to visit workshops where their children are being trained as a venture in public relations; but **Beckman Instruments,** scientific instrument makers of **Glenrothes, Fife,** have a more constructive attitude to the 'parent-tours' they organize.

They believe that their policy of inviting parents to be conducted around the factory by their son or daughter is intended to show them the working conditions provided for the youngsters, to satisfy them that the firm can offer good career prospects for them, and to secure parental encouragement for continued effort by the young recruits.

Manager in charge of this British-American plant, **Mr. Jack McNally**, launched a new training scheme several months ago. His motto appears to be: "Don't forget to include the parents in your training programme".

★

FIVE brief lessons for firms wishing to improve their human relations are recommended by the Henry J. Kaiser Company, Oakland, California. What they call a 'five-phrase capsule course' is simply:

- Five most important words—I am proud of you.
- Four most important words—What is your opinion?
- Three most important words—If you please.
- Two most important words—Thank you.
- Least important word—I.

The final suggestion is a palpable threat to the Jacks who have been all right for some time now.

★

IN *Token*, the magazine of **The Bank of London & South America** and **The Bank of London & Montreal,** without explanation, a whimsical note appears with the heading 'Function of the Executive'. It is a fair picture of a firm that has not heard of personnel management.

"As nearly everyone knows, an executive has practically nothing to do except to decide what is to be done, to tell somebody to do it, to listen to reasons why it should not be done, why it should be done by someone else, or why it should be done in a different way; to follow up to see if the thing has been done, to discover that it has not, to enquire why, to listen to excuses from the person who should have done it; to follow up again to see if the thing has been done only to discover that it has been done incorrectly; to point out how it should have been done, to conclude that as long as it has been done, it may as well be left where it is; to wonder if it is not time to get rid of a person who cannot do a thing right; to reflect that he has probably a wife and large

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family, and that certainly any successor would be just as bad and maybe worse; to consider how much simpler and better the thing would have been done if one had done it oneself in the first place; to reflect sadly that one could have done it right in twenty minutes, and as things turned out one has had to spend two days to find out why it has taken three weeks for somebody else to do it wrong".

★

EMPLOYERS are sometimes embarrassed—often annoyed—by the number of requests made these days by deserving charities. Unavoidably, the priority of causes must be discussed and some causes have to be neglected. Collection boxes are inconvenient and it is hard to make a fair selection of the many appeals.

An excellent system has been devised by the **Smethwick** glass company of **Chance Brothers Ltd.**, after consultation with employees. Voluntary contributors give a penny a week from their wages; and an elected committee decides how the money should be allocated. Modest amounts are given to as many deserving organizations as possible—with emphasis on local appeals.

Since the scheme has been in operation, more than 85,000 pennies (£354) have been distributed in amounts varying from three to ten guineas. Last year, 42 charities received nearly £200.

★

IF your suggestions scheme is not going too well, why not follow the example of the Rotherham firm, **Steel Peech & Tozer?** Turn the final page of your house journal into a suggestion form.

★

IT is a brave firm that holds a competition to find a name for its new house journal—and then rejects all offerings and makes only consolation awards: the **M-O Valve Company** of G.E.C. Ltd. had 64 entries in their competition.

They say that many entries were rejected because of their close resemblance to names in use for commercial magazines and other house journals so that not even the six best entries succeeded. But the Company's management were careful to give three good reasons why *Thermionic* was the winner—from an unspecified stable.

This is a pretty thorough firm in other respects too—never settling for second best (see page 31).

This month's cover

Countless firms must have inferior morale, communications, and reduced efficiency simply because of hearing loss prevalent among employees. And it is no good walking around with audiometers, or measuring the hearing of employees (cover), unless you are prepared to spend money modifying premises and buying ear-protectors—on the advice of the sound engineer.

With the formation of the Noise Abatement Society and Parliament's concern for the tyranny of sound in modern, urban life, we can expect an avalanche of pleas for compensation when every citizen has been alerted to this problem. Your hearing is as irrevocable as your sight. Every company will have to make its own surveys, fight its own compensation cases—conquer its own noise.

An April conference on this subject at the headquarters of the Industrial Welfare Society is reported on page 25.

You're fired

According to Lord Dalton, men with fire in their bellies are needed to bring industries into the development areas. An eccentric commentator has remarked that personnel selection officers entirely agree, but it is very difficult to know who really has a fire in his belly and who has not. One expert, attempting to show the difficulties inherent in such an appraisal, gave this picturesque account.

"A bloke may walk in like an acetylene torch with smoke and flames pouring out of his mouth and nose and ears, and so forth, and you say, well, this is just the bloke we're looking for. And then you find it's not his belly that's on fire at all, but his brains."
(Daily Telegraph.)

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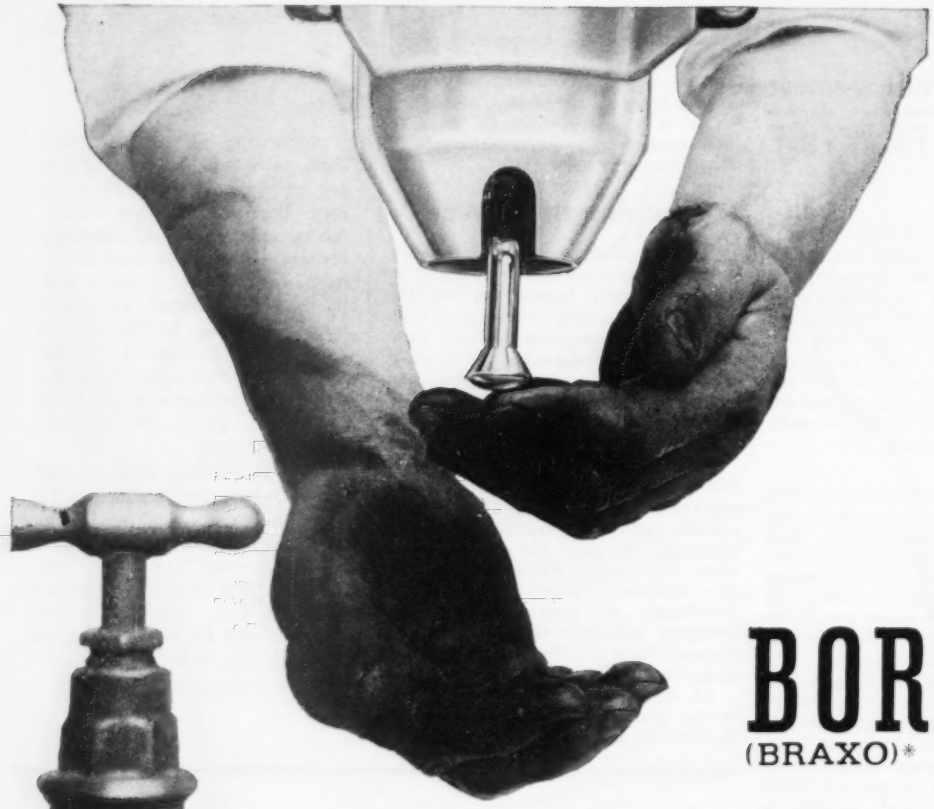

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Readers' Letters

Sir,

Your Discussion Leader has stimulated me to make the following comments regarding delegation.

The greatest problem in delegation is to persuade people to delegate at all. In helping others to delegate work, an executive (leader or supervisor) should always follow one of the basic principles of good management: that is, that decisions and actions should always be taken at the lowest level consistent with efficiency and effective execution of work: that is axiomatic.

Adequate delegation (and its corollary of 'a creative influence' in the development process), is largely a matter of sound activation and of engendering in subordinates a sense of enthusiasm and purpose for the job in hand. The leader must lead by example. He must motivate his staff by inspiring and encouraging them and by evoking within them a willingness and keenness to make decisions and to 'get things done'. Optimum creative influences will only be inculcated in employees if their morale is high. To achieve this, the leader must aim at promoting contentment and a sense of 'togetherness' among his subordinates. A recognition of partnership in a common task will inevitably create the atmosphere and environment in which full delegation will be most effective and, most important of all, in which staff will accept delegation as an automatic management process. People respond to this kind of leadership: that is, to democratic as opposed to autocratic leadership.

H. THOMPSON, D.M.A., A.H.A.

The General Hospital,
Bishop Auckland.

Sir,

I would like to ask your advice on a particularly worrying problem of executive development which shows signs of degenerating into a dangerous, human problem. Two years ago, we introduced a promotion policy for executives whereby we selected young men in their twenties to take part in a training programme spread over a number of years and run by our training officer. In effect, they are being groomed to take over senior posts that will fall vacant in some seven to 10 years' time.

The problem concerns the older men in the factory who are obviously growing depressed when they see that they have not been chosen for training. They also realize—many years before they need to—that their promotion chances have vanished. One man, in his early 30's, has already told me that he is looking for another job so that he is not 'caught like that'.

I feel that, as a selection policy, our methods are commendable. This does not prevent me from throwing doubt upon them inasmuch as they appear to invite inevitable human crises. Perhaps you, or some of your readers who have established similar plans for management succession could advise me. How can I retain the excellent training and development scheme, whilst avoiding the pitfalls?

G. G. ALLDERIDGE.

3 Riverside,
Chelmsford.

Sir,

Your comments on merit-rating interviews seen from the employee's point of view raise an important point in the relationships between management and staff. These could be made more harmonious if those in junior positions could remember that managers are not usually despotic but, in fact, are human beings open to fair reasoning. They are usually men under very great pressure and with a large number of worries; and it is the strain under which they work which may often lead to somewhat abrupt refusals, if matters are not put to them in the correct way.

The situation is well known where only one member of a group of junior staff dares to go in to see the manager and to tackle him on matters on which the staff feel they have some grievance. There is usually considerable amazement when the person comes out with his request granted and his job intact, but this is almost invariably a question of approach. Such a person has gone to the manager in a reasonable way with his case carefully thought out and his point positively put forward, also giving the manager time and opportunity to consider the matter and to think of a compromise if he cannot grant the request completely.

Even if, after consideration, the manager cannot grant what is asked for, his refusal will invariably be made with an expression of regret; and he will think none the worse of the employee for having come to him in the first place.

A wrong approach to a supervisor or a manager not only prejudices a particular case, but may also stimulate a permanent dislike which will prejudice all further requests. Yet junior staff often seem to give no thought to this possibility. The strange thing is that it seems to be the most unsatisfactory employees who expect the most from their chiefs, not as a favour but as a right.

D. E. BURTON.

Administrative Manager,
Belgian World Airlines,
London, W.1.

Sir,

In your comments about the recent B.B.C. careers programme on personnel management, you say "it is disturbing to hear that the activities of personnel managers must still be classed as advisory with little hint at executive authority".

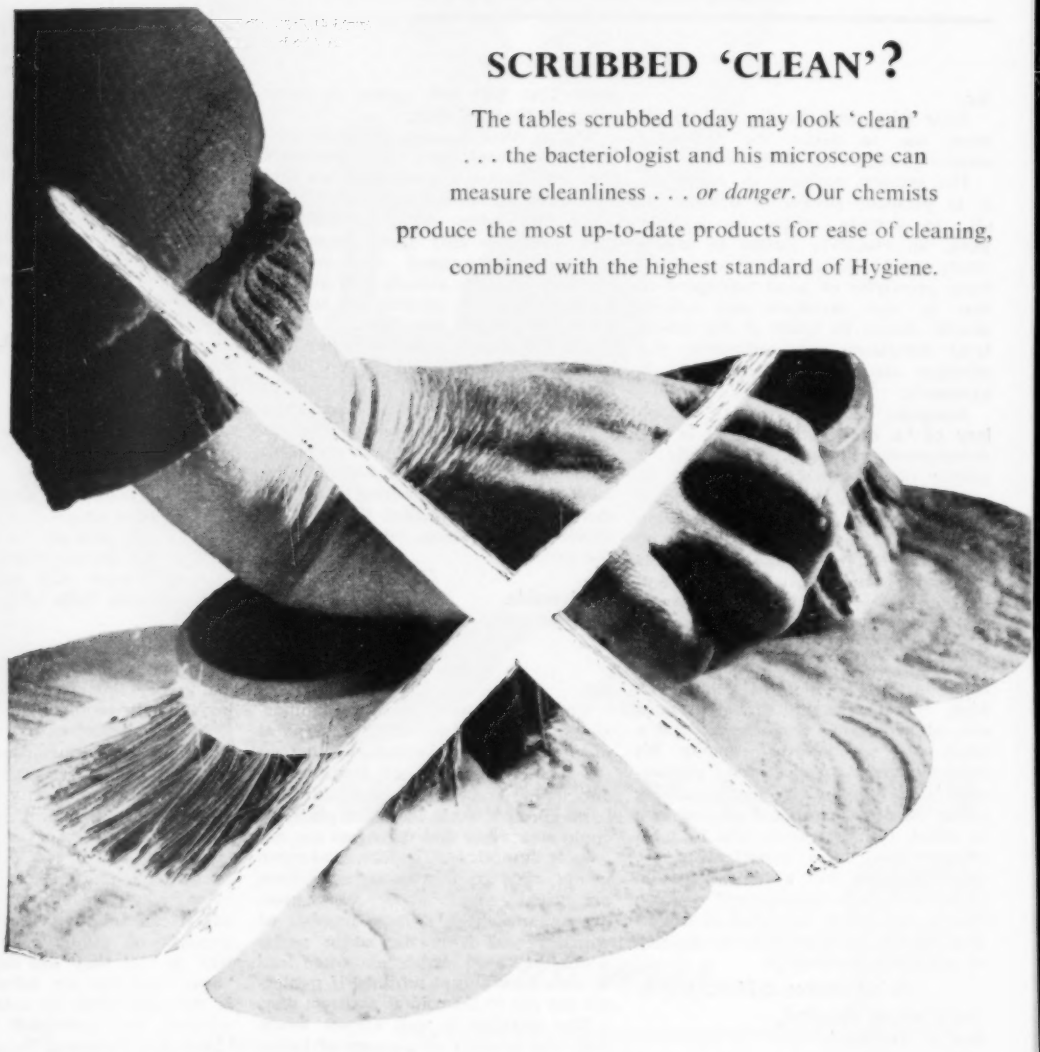
I feel that the statement is so contrary to the principles and objects of many of your readers that I am immediately prompted to question it.

A good deal of effort is expended in trying to divest ourselves of executive authority because, in general terms, the more executive authority the personnel manager has to retain, the poorer are the personnel managed. The title 'Personnel Manager'—like 'quality controller' and others—is a ridiculously presumptuous misnomer which can surely be justified only on grounds of public relations; people like to feel they are dealing with a 'boss' and are not satisfied that this is the case when he calls himself an adviser or consultant — or even 'Manager, Personnel Department'.

As I did not hear the broadcast, these criticisms of your comments may be quite unfair and you may not mean what I think you mean by the phrase 'executive authority'. If so, others must also have had a similarly wrong impression. Many personnel managers, far from sharing your views, will acclaim the fact that their function can be classed as advisory with little hint at executive authority.

JOHN ALLAN.

Personnel Manager,
John Waddington Ltd.,
Leeds, 10.



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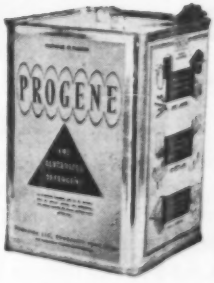

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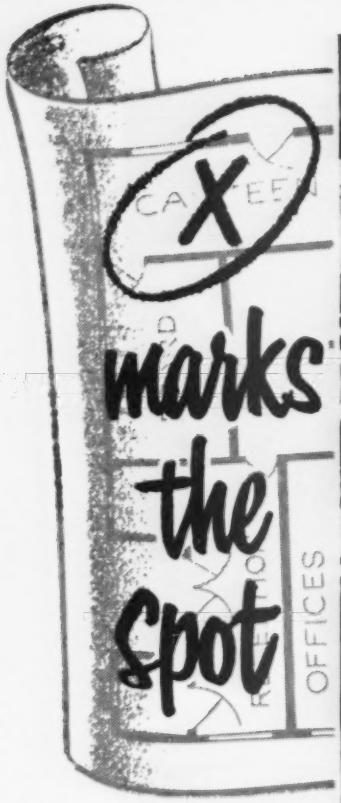

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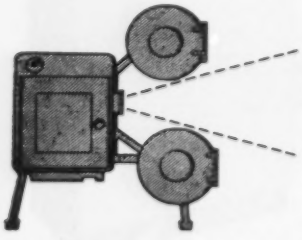

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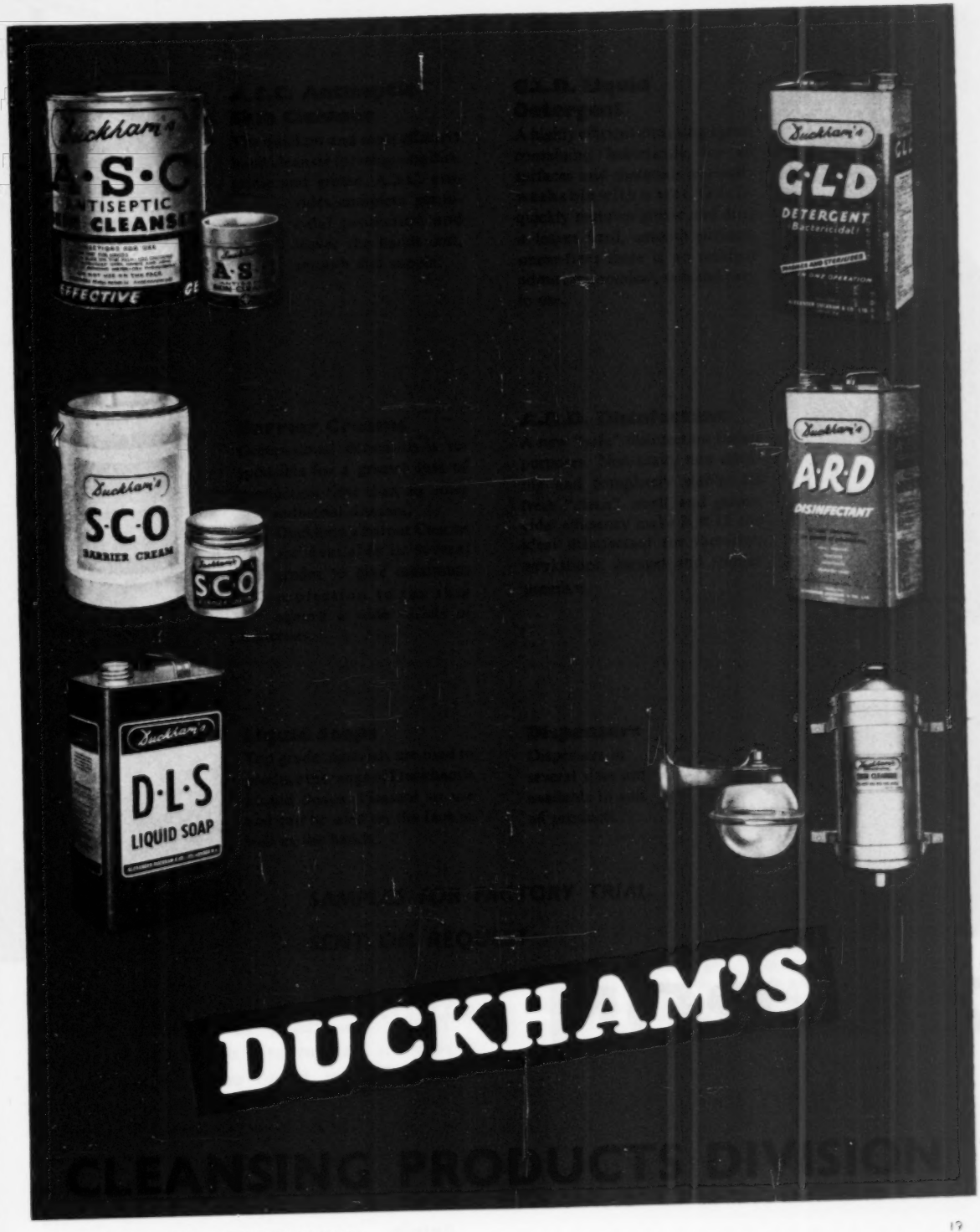
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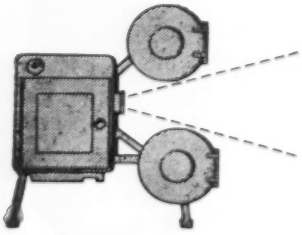

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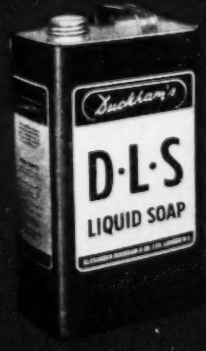

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People Have Edges —especially at work

Looking at industrial relations in Canada

by O. T. Curtis

THE latest series of Canadian industrial films to be distributed by the Central Film Library must enhance the excellent reputation enjoyed by the National Film Board of Canada. There is hardly any field of specialized film-making to which they have not made a major contribution.

In the field of management training they have made notable and thoughtful contributions (think of **Date of Birth**—the only serious film study about the employment of the over-45's; or films on union-management relations such as **The Grievance**). This new series on "The nature of work—a six-part study of man in his job," is a very welcome addition to the limited number of films which seriously discuss human relations in industry.

These six half-hour films follow a set pattern: an introduction by an anonymous (and slightly sardonic) commentator of some facts about human relations relevant to the film story to follow; a dramatized study of a personnel problem; and a concluding commentary by Professor H. D. Woods of the Industrial Relations Centre, McGill University.

First in the series—and in many ways the least satisfactory—is **The Clerk.** Because it is the first film, its introduction is rather longer than those of the other five. It emphasizes that job satisfaction may be derived from many sources, and that for every individual it is a particular combination of factors which may provide either satisfaction or frustration.

For John Gillis, clerk in a large organization, the combination of factors adds up to complete frustration. He dislikes his routine job not only because of its monotonous repetition but also because the statistics with which he deals are meaningless, unless related to others which are handled somewhere else. Held up through a delay by a supplier in providing current costs, John sees the chance to bring some interest into his work temporarily and persuades a reluctant and suspicious supervisor to let him go to the firm in question for the figures.

The visit is a dismal failure. The

Strangled by the line

Repetitive work can be tyrannous: the obligation to appoint less creative individuals to monotonous positions cannot be exaggerated. New factories are giving Canadians this problem

departmental manager of the firm will not do business with a clerk (partly because he expects a buyer with whom he can ratify quotations, but also in part because of a status-consciousness which is heavily underlined throughout the film). John Gillis fails miserably to exercise the initiative he so much wants. His supervisor, a weak character whose only avenue to recognition is the rigid adherence to an established office routine, is confirmed in his belief that it was folly to deviate from the proper channels.

If the background to this film has any basis in fact, then it shows an incredible situation. Both Gillis and the supervisor are notable examples of poor personnel selection; the 'system' apparently takes no account of even elementary knowledge about the ways in which people think and behave. If all ranks in this industry are as status-conscious as the film suggests, then surely, this itself might have been a more worthwhile subject for the film. If clerical work is so unimaginatively organized in an advanced economy like that of Canada, then what chance is there that senior management is even aware of a human relations problem.

By contrast, **The Man on the Assembly Line** is by far the best of the series. Rod Quinn has had nine years on the assembly line, making cabs for motor trucks. Intelligent and sensitive, he is brought to an advanced state of neurosis by the repetition, monotony, and lack of scope for personal initiative and creative ability. He is expected to explode in crisis on the day portrayed in the film. He hates his job, but cannot afford to quit. He would earn less elsewhere and would lose nine years' seniority.

On this day, a series of incidents, each trivial in itself, precipitates his breakdown. He has a brush with his supervisor; a friend fails to deliver a birthday present for his child; a relief worker does not turn up in time so he is unable to make the telephone call which could produce the present in time for his child's birthday; and a fault in one of his electrical tools prevents him turning out a proper job. To cap it all, a works visit stops at his station and the innocent remark of one of the members of the party—"nice working conditions you have here"—provokes Rod's bitter outburst.

Yet this is no melodrama! Rod's neurotic state contrasts markedly with that of his workmates who have all adjusted themselves to the demands of the assembly line. For them, the line is a job. For Rod it is the destroyer of the self-respect of an intelligent,

creative personality caught up in a mass-production industry where "nobody produces—the plant produces".

The Skilled Worker presents another facet of this same problem. John Stower, Ukrainian craftsman and naturalized Canadian, derives deep personal satisfaction from his work-skill and from the pride which he shares with his fellow craftsmen. The visit of management representatives to supervise the removal of hand-operated lathes (to be replaced by mass-production equipment), emphasizes both the nature of the coming change and the complete unawareness of the efficiency-minded managers of the craftsman's mentality and motivation. Despite the efforts of a friend, John cannot be found another craft job and is offered a job on the line. The frustration of this situation is enhanced by John's realization that his son, who works on the line, has no appreciation of his father's outlook. Why indeed should his father even feel resentful at getting moved to another job at the same pay? "You are only one little man. This plant employs 12,000!"

John's relations with his son are similar to those of Danny Ehrlich, **The General Foreman.** In fourteen years, he has worked his way up from the assembly line, aided by skill, intelligence, and the patience to pursue policies in which he believes. But, for all that, Danny still feels himself tied to 'the line'. This is emphasized when he is compelled, in the interests of efficiency, to accede to the request of his line foreman, and take an old buddy off the line to work as a sweeper at his present rate of pay. When the latter starts discussing 'the good old days', Danny is moved to exasperation, for he is oppressed by the pressures on the man in the middle.

Yet Danny's son will not take the chance of starting up a new garage with the son of the Departmental Superintendent, and argues with Danny that not only would this mean financial sacrifice (with dubious possibilities of increased income later), but would involve taking risks and making decisions. Work on the line absolves him from such worries. His father's attitude seems meaningless and he protests "work is something you just get paid for". This is an interpretation of the meaning behind his job which confirms for Danny his worst fears about the tyranny of the line.

But it is not only line worker and middle management who have their problems. Gil Connor (subject studied in **The Department Manager**) has them too. He is a skilled design engineer, happy at his work, popular with his colleagues, and recognized tacitly as the leader of their group. His promotion to Chief Design Engineer changes all that. He cannot change his interests and outook, and significantly the only bit of equipment he introduces into his new office is his drawing board. He pursues the detail himself and will not easily delegate jobs. When this is gently pointed out to him by the senior manager who had appointed him against his better judgment, Gil reacts by becoming the bureaucrat.

This film, more than the others, hints at some of the realities of the workaday world. Gil's predecessor has got a job with a rival firm. He helped select Gil, not because he cared about the job or the man who was to fill it, but because it was expected of him to help. Danny's wife, whilst apparently helping and supporting him, obviously enjoys the better living and status that go with the new job, and encourages Gil whilst taking no account of his real interests. And as the film suggests, perhaps this is a case where the situation dominates everybody.

Promotion must be internal if the design team is to believe that good effort gets its reward. Gil's skill, and his status with his colleagues, mean that everyone must think of him as the man for the job, and would perhaps resent the appointment going elsewhere. Moreover, Gil has the paper qualifications too ("Remember", says his predecessor, "he's got a Ph.D.!"). So Gil, higher management and the design team become victims of a situation which provides satisfaction for none of them.

Subtlest study of all is that in the last film, about the **Vice-President.** John Harvard, senior engineer, is promoted Vice-President on the sudden retirement through illness of the incumbent. And he is immediately faced with the difficult task of pushing through an export order against a tight schedule. For Harvard, the new post provides a complex situation with its satisfactions and frustrations. In his new job, he has an over-all view of the company and its activities hitherto denied him. But with promotion goes isolation—intimacy with colleagues gives way imperceptibly to formal relationships, despite mutual respect.

The needs of the situation demand unpleasant personal decisions—such as not promoting a friend because the latter would not really be the right man for the new job. John enjoys his wife's sympathy and real understanding of his problems. But the problems remain none the less. John Harvard, albeit at the highest level, is still a 'man in the middle', with pressure from the President above, and senior management below. If he has new satisfactions—power, prestige, and generous material reward—they do not compensate for the loss of the satisfactions of his old job: working as a practical engineer rather than an administrator, "down with the boys, getting the bugs out, watching things roll".

Here is a provocative series of films, finely produced. But why is it that Professor Woods can get no further than restating a situation already ably expounded in the film? Surely his contribution should either be to offer some suggestions for future policy in the light of the situations revealed; or to pose provocative questions designed as part of some conscious follow-up to the film.

Who will use such films?—Assuredly, not the managements that ought to see them. And when will British industry or Government promote some equivalent series like this courageous Canadian set, to point out weaknesses of our mass-production systems, and the tyrannies they impose on those who depend on them for a livelihood—for those personal satisfactions without which life has little meaning?

'The Nature of Work—a six-part study of man in his job'. Obtainable on hire (15s. each) from The Central Film Library, Government Building, Bromyard Avenue, London, W.3. Each film is sound, black and white:

C. 521	The Clerk	29 min
C. 522	The Man on the Assembly Line	29 min
C. 523	The Skilled Worker	30 min
C. 524	The General Foreman	29 min
C. 525	The Department Manager	29 min
C. 526	The Vice-President	29 min

All's fair ... in love and selection

MANY of you have definite ideas on what secretaries you like—judging by my post bag. An employment officer writes that he has the responsibility of choosing all grades of clerical staff for his company. "When a prospective woman candidate for any of these jobs comes into my office" he says "I take a careful look at her stocking seams: if one or both of them are crooked, I turn her down straight away. If she can't keep her own seams straight when attending an interview, I do not see much hope for the company's filing system". He goes on to say that people (both men and women) in his firm make a big point of being smartly dressed and well groomed. This is part of the tradition of the organization. "I must employ people who will dress in the same way as everyone else," he concludes, "or they would feel out of things".

Another correspondent expresses much the same thought, when he says that as well as being efficient secretaries (more than any other employees), they must fit the 'culture' of an organization. "We executives," he writes, "work under constant pressure. It is absolutely imperative that our secretaries should be prepared to work as quickly and as intensively as ourselves. Things like putting a vase of flowers on our desks or pandering to our idiosyncracies, are definitely *out*—we have no time for such frills."

Rare Birds

Clearly, secretaries are picked for a variety of what we might call social factors, as well as for technical competence. A good secretary, to be successful, must possess the quality defined by an American sociologist as "social sensitivity". She has to sense the codes of behaviour which regulate personal relationships in her firm, and fit in with them. This is not surprising when we consider how much of a secretary's job lies in the contacts she makes with other people. It all reminds me of the managing director who needed a new secretary and was sent three girls to choose from. He did not even glance at the forms bearing the record of their accomplishments. "I'll take the blonde!" he said.

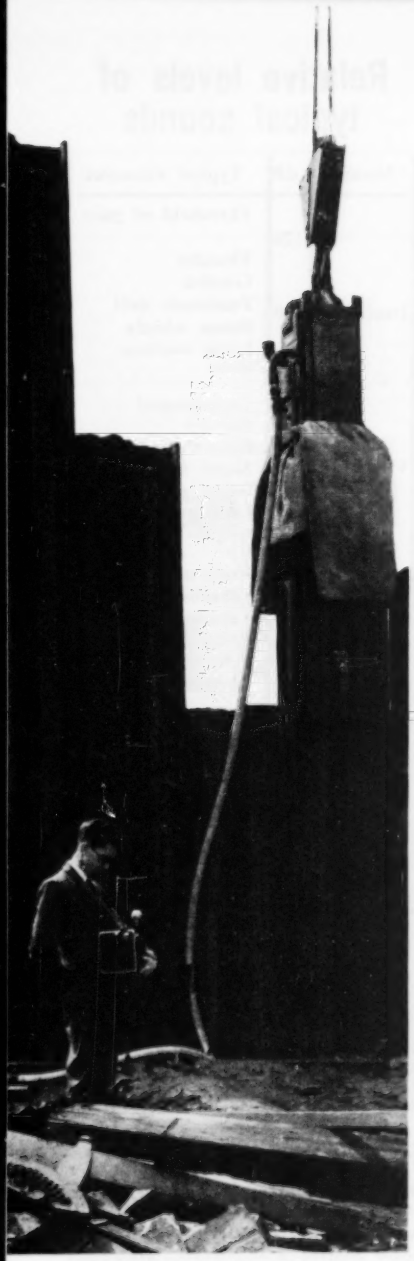
Another correspondent had quite a different rôle in mind for his secretary. "My secretary must be a good listener. I like to talk *at* her, rather than *to* her. I tell her about my problems, about my plans for the future of our department, about the way I intend to handle a difficult situation—in fact any knotty problem is talked out in this way. I do not expect her to advise me what to do, but by listening to me and showing that she understands what the problem is, she helps me somehow to clarify my own thoughts".

This manager is fortunate indeed if his scretary really can listen in this way. Such people are rare in our society. In fact, listening has been called the "lost art of our age". The value of finding such a listener is immense. When, like the Ancient Mariner, "Until my ghastly tale is told, This heart within me burns", we need above all a receptive ear into which to pour our troubles and perplexities. Letting off steam in this way reduces feelings of anxiety, frustration or anger. We are then more able to tackle a problem constructively and reasonably once more.

Market trends for packaged personalities

Further to the opinion (April issue) that the development of each individual should be a major goal for the modern business to pursue, I am reminded of an interesting book by Erich Fromm, called "The Art of Loving" (George Allen and Unwin). The deepest need of man he says is to overcome his feeling of separateness, loneliness and insecurity in the face of so many hazards he is unable to control. This need, he says, is not being satisfied in our modern industrial civilization which is regulated by 'the market'. We are forced to sell our abilities and personalities like so many commodities on the market. We all tend to conform then to a standardized pattern of behaviour so that the "personality package" we have to sell will be acceptable. But such conformity to group codes does not allay our feelings of separateness.

Union with the group gives 'sameness' but not oneness. Such a union must come through the practice of active love. This, he says, has four main characteristics: care (or active concern for others); responsibility—that is, responding to the needs of others; respect—to see a person as he is, as a unique personality; and knowledge—to know and understand him deeply. "Love" defined in this sense is an attitude of the total personality. If we have this attitude towards one person, we must have it towards every person and also towards ourselves. It looks as though, if all managers could cultivate this art of 'loving', they would be providing the kind of climate within which their subordinates could grow and mature. What do you think?



A little ingenuity and some skill can check the thumps and take the terror out of such a noise-monster as the steam hammer

Occupational Deafness—

What is it costing your firm?

by Peter Wright

IN areas of heavy industry, the volume control in cinema projection rooms is stepped up 20 per cent for the benefit of 'work-deafened' patrons. But we are still waiting for an employer to be sued—on account of occupational deafness—before this country will admit the hazard; and establish a system of compensation as they have done in America and on the Continent. Our trade unions are already alive to this inadequacy and they are not neglecting to create the appropriate tensions. If the National Union of Mineworkers is capable of making a wage claim for "loss of social life" suffered by shift workers, it is certain that deafness will soon be a topic in wages departments.

A subjective survey can easily be made by personnel and welfare officers who do not know if their factory is a place where noise is a danger to physical health. When you cannot be heard at a distance of three feet without bawling, you have a noise problem. It would be easy to name firms of international reputation where 25 per cent of the employees work in such conditions. Some companies are compelled to ask manufacturers to adapt noisy machines; others would have severe ventilation troubles if buildings were modified to suppress noise; and others have the community problem of night-shift working in a residential area.

Exposure to excessive noise damages the ear, strains the nervous system, causes high blood pressure, nausea, fatigue—and poor communication. Occupational deafness, the most obvious disability that results, can also be caused by blows on the head (a series spread over a period), explosive blast, changes in barometric pressure (as in tunnel construction), or even by severe burns. But the most common causes are obviously the over-all noise level in decibels (over 90), the frequency of the noises and the duration of the exposure.

Although there are some jobs for which deafness is a qualification, most employees should have good hearing for communication (and for direction-finding)—and therefore, personal safety. In some industries, a pre-employment hearing check is standard practice; and there are many types of audiometers and a multiplicity of tests. Examinations of this kind, which are widely known in America, have revealed that a quarter of the total applicants for jobs in that country have hearing loss.

According to Dr. J. C. Graham, principal medical officer of H. J. Heinz Co. Ltd., this sense can easily become

Measure vibrations, count your noisy typewriters—but leave the decisions to the sound engineer

permanently damaged in three years. As well as the psychological annoyance of noise at work and the effects on the human body already mentioned, we can also expect noise to affect individual performance and efficiency. In mass production, where numerous inspection tasks exist, and in automatic processes where man is the last link in the chain of production, the worker's ability as a monitor is important. But Dr. Graham insists: "There is no conditioning to noise: you usually suffer temporary deafness which may become permanent."

Factories with external walls of sheet steel, internal walls of mineral wool, and doors of lead might improve working conditions acoustically; but even new structures are unlikely to be composed of these materials. Noise reduction is a subtle operation with these major problems:

(a) Absorption. With the aid of an audiometer, a sound engineer can detect dominant frequencies, to plan a means of absorption.

(b) Insulation. Some people make the mistake of using absorbers to insulate. Doors, windows, and trunking for ventilation are the enemies of good insulation. A small hole in a wall of lead can let any amount of noise through.

(c) It's the frequency that kills. Fortunately, ear muffs and plugs are available to guard against different frequencies.

Dominant frequencies and ambient noise conditions must be known before bad situations can be improved. A curious illustration of an unexpected difficulty which may be increasingly common is that of the new factory in a country location—where there is no competitive noise. In such a case, the nuisance may simply be overcome by background music, or a similar device to blanket conflicting noises.

How can firms mitigate the noise menace? What can you do with a faulty building before most of your employees become compensation cases in this respect? Deafness is a social handicap which will not be forgotten by the rate-fixers in the next few years. For the immediate amelioration of working conditions that are clearly unsatisfactory because of excessive noise, several equipments are available. Some examples indicate different approaches to this necessary task:

Telephones with flash-light handles, for use where there are too many instruments or a need for absolute quiet

Gears made of plastic instead of metal

Acoustic booths to isolate noisy jobs

Machines mounted either on a plinth or on a cork/rubber mat to cut noise and vibrations

Discontinuous construction of new buildings (floating floors), with double glazing and roofs of insulating materials

Ear plugs for protection from impact (explosive) noises, and ear defenders (covers) against high frequency noise.

The Law is not far behind technical developments—it can never be ahead, of course—and with the Noise Abatement Bill and the trade-union interest in this subject, we may soon see a great purge of noise in industry and commerce. In these days of the 'demountable partition', offices too are often noisy places and deserve the attention of the sound engineer. Clearly, personnel managers have an urgent task that cannot await the dream solution of factories built of wool and steel plate—or equivalent materials.

Relative levels of typical sounds

Noise	dB	Typical examples
		Threshold of pain
	120	
		Thunder
		Gunfire
Deafening	110	Pneumatic drill
		Steam whistle
		Large machine shop
	100	
		Underground railway
		Busy street
Very loud	90	Noisy factory
		Inside aeroplane
		Loud public address system
	80	
		Noisy office
		Suburban train
Loud	70	Typewriters
		Radio set—full volume
		Average factory
	60	
		Large shop
		Average office
Moderate	50	Quiet motor car
		Quiet office
		Average house
	40	
		Public library
		Country road
Faint	30	Quiet conversation
		Rustle of paper
		Whisper
	20	
		Quiet church
		Still night in the country
Very faint	10	
		Sound-proof room
		Threshold of hearing
	0	

Have you read . . . ?

Industrial Deafness, *by J. Sataloff (McGraw Hill)*

Noise; causes, effects, measurement, costs, control (*University of Michigan*)

Acoustic Principles—Practical Application, *by D. J. W. Cullum (Spon)*

Acoustics, Noise and Buildings, *by P. H. Parkin and H. R. Humphreys (Faber and Faber)*

Handbook of Noise Control (*McGraw Hill*)

These books can be obtained from Business Book Centre, 109-119 Waterloo Rd., S.E.1.

Alan Bird says

PLAY THE OPEN GAME

by Mark Essendon

WITH only eight main-line trains a day, Wellington in Somerset has a peaceful, holiday atmosphere. But only a few hundred yards from the centre of this town, the factory of Price Bros. is busily turning out thousands of spring-interior mattresses and divans a year. Any thought that the relaxation associated with this firm's product might influence the tone of their human-relations policy is dispelled immediately when you meet Alan Bird, personnel manager in this 100-year-old firm.

If you talk to him about welfare costs and facilities, he'll give it to you with both barrels. Of course, industry should hand out welfare benefits: but with no strings attached. Alan Bird reckons that industry, and particularly personnel managers, may be jeopardizing their future by regarding and using fringe benefits as bait to workers. Why? Because, workpeople are no fools, he says, and they will take the hand-out in the same spirit as it is offered. However, he concedes, there is no backing down now, but we must revaluate our motives and play an entirely open game.

But can you play it that way and get results? The first essential, according to Mr. Bird, is to get out of the office and meet the workers. Admittedly, there are only 500 of them at Price Bros., but he knows most of them on Christian name terms: he knows what they think of him and everybody else in the place. In the 10 years he has been with the firm, Mr. Bird has built up strong personal links all round—with workers as well as managers and directors— and he has their complete confidence.

Personnel management will go into decline, if it makes itself too important, says Mr. Bird. He probably means that unless you adopt his own practical approach, you risk getting so tied up with text-book stuff that the real job of sorting-out problems, peace-making, etc., will not be done. He has cut out all the frills (methods and procedures that would involve his remaining for long periods in the office). Of course, he has a filing system, but it is for confidential dossiers on each member of the working community, compiled since he set up his department.

When he selects employees, he does it in the usual way. An initial interview to get the over-all picture of school records, previous experience, medical reports, family background, and a general discussion on the candidates' interests and hobbies. Emphasis is

placed on the applicant's personal qualities, and excludes any attempt to test his aptitude for the vacancy. Latent skills are assessed by departmental managers who, Mr. Bird is pleased to say, engage nine out of every 10 applicants he recommends.

In view of the current backing in many firms for more complex and objective selection procedures, some justification for Mr. Bird's methods is called for. The reliability of his technique could perhaps be measured quantitatively in terms of labour-turnover figures and absentee rates. For the past 10 years, these have been respectively 15 per cent and four per cent (the latter representing a percentage of the total possible hours as against those hours lost through absence).

Personal style

A great record, but could it not be improved on by more modern techniques? Well, Mr. Bird has tried them. In the early stages, he used a series of intelligence and general tests based on those evolved by the N.I.I.P. His reason for discontinuing their use at Price Bros. was that they are doomed to failure unless they are supported by the necessary organization for administering and validating them. A secondary reason for their curtailment was the fact that, to a substantial degree, there was no need for such penetrating appraisals of an applicant's potentialities. Most of the manufacturing skills at Price's are capable of assimilation with only a reasonable degree of intelligence and manual dexterity.

Mr. Bird has little to do with management selection, which is a matter for the Board. However, Mr. Bird is beginning to play a fuller part in the development of managers, once they are engaged. He has already made arrangements for some established managers to attend external, residential courses on general managerial topics. Mr. Bird prefers to tackle these problems from the beginning, so he has much more to do with management trainees. Their technical and production training he leaves to the departmental heads. Then he steps in to make sure that they are being prepared in the general managerial skills, such as human relations. He lectures them himself on this topic, and then sends them off on various external courses such as those provided by TWI and local educational and university bodies.

Supervisory management is strong and well-instructed in this firm. Mr. Bird believes that British supervision is vastly underrated in importance and in development. Therefore, he personally instructs those at Price Bros. (he follows the TWI Course No. 20). His insistence on taking such an active part in this activity derives from a dissatisfaction with the services provided by academic courses. He is convinced that many experts in the field of human relations talk over the heads of the average supervisors, thus minimizing the results achieved by their otherwise excellent counsels. "The supervisor can best succeed in dealing with human problems if his teaching has been based almost exclusively on the practical implementation of theory. Although supervisors should be encouraged to have an academic knowledge of human relationships, their immediate task is to get things done."

Not infrequently, deliberate attempts like this to promote the status of supervision raise a howl of protest from employees who see them as shots in the back of the trade-union officials in the factory. At Price Bros., there has been no such cry because Mr. Bird maintains the same close relationship with union secretaries as he has with the employees themselves. Despite the rural and non-industrial setting of this factory, Mr. Bird operates with the unions at a higher level than many of his counterparts in heavier industries. In fact, area secretaries of various trade unions themselves work at Price Bros. —there being no similar industry in the immediate district.

A guardian

No employee can be dismissed without the personnel manager being consulted. Although there are obvious exceptions to this rule (the case of a man deliberately sabotaging works relations or production), where a question of grave human weakness is involved, Mr. Bird is directly responsible for the preliminary investigations, in conjunction with departmental managers, supervision and trade-union officials.

Where Mr. Bird's practical knowledge of his employees' circumstances and commitments really becomes useful is in the event of redundancy plans being drawn up for the factory. Whenever there is the prospect of workers being laid off—an occurrence which fortunately has not taken place for some years—he is sent a complete list of names by the management. He passes a copy on to the union officials, studies one himself, and then the two get together to discuss any special dispensation that should be made in the case of specific employees. The priority in every case must be given to those who may suffer special hardships by losing work: the unions abandon any last-in, first-out principles and management has to be discriminating. Although union proposals are not accepted every time, labour relations are invigorated by this scheme for ensuring that, when hard times come, some store is set by the circumstances of individual employees.

And umpire

Wage negotiations are carried out on a national level by the National Conciliation Board for the Mattress-Making Industry — Mr. Bird is a deputy member. Even though he has no dealings over wages with his own union members in Somerset, Mr. Bird indicates that he would approach it in the same way as his other tasks, if the situation arose. The personnel manager, he repeats, can never be committed to either side: his duty is to remain available for bringing them together. He acknowledges that, to many people, this may seem rather an ideal conception; but on the other hand, it should be jealously sought after, if personnel managers are to continue in their industrial role and if they are to be assured of security in that profession.

There can be little suspect in the human relations policy in this firm as most of Mr. Bird's work is of a practical nature — what he does is generally known and often visible. But how does his method of working fit in with more 'organized' people?

- He is responsible for the canteen policy;
- Without indulging in campaigns, he looks after accident prevention;
- Employee's personal problems that he cannot solve, he channels to an expert individual or organization.

Whatever he touches, Mr. Bird has the art of reducing it to manageable proportions. He is a pragmatist who can tell when his work is effective; and most of the time, it is.

RIGHT SIDE OF THE LAW

by COUNSEL

Basic strikemanship

IS a strike, or a lockout, inherently unlawful? The answer is 'No' provided it is undertaken for a legitimate purpose, e.g. to force an employer to carry out his agreements. But such measures may easily involve unlawful acts and generally involve doing things that would be unlawful but for the immunities conferred by the Trade Union Acts. For example, at Common Law, a strike in breach of contract was an unlawful conspiracy and may still be so in certain circumstances. Moreover, it was decided in a famous case at the beginning of the century that a strike designed to injure a person's business was an unlawful conspiracy, unless the strikers' main concern was to protect their own lawful interests.

Organization men

But in the year 1906, an Act was passed to give the unions a certain degree of immunity in respect of torts (civil wrongs), that they might commit. In consequence, the courts cannot entertain actions against unions or their members or officials for tortious acts done on behalf of their unions which would otherwise be actionable.

Clearly, this gives the unions an unusually privileged position as to what they may do, particularly in the course of a trade dispute.

It is not always understood that this immunity extends equally to combinations of employers. Naturally such a privilege, in the case of bodies which have attained such power and wealth, has been severely criticized. It is, in fact, doubtful whether the immunity is as wide as is generally believed. It has been pointed out that actions against unions for breach of contract are not prohibited. Thus a member can sue his union if he has been expelled in breach of the union rules.

Moreover the trustees of a union may still be liable for tortious acts done on behalf of their union, unless the acts are done in furtherance of a trade dispute. Under the *Restrictive Trade Practices Act, 1956*, the collective maintenance of resale prices is made unlawful and the immunity of unions under the 1906 Act is expressly excluded in this instance. Of course, this provision is more likely to affect unions of employers.

Immunity from criminal proceedings is conferred by the Trade Union Acts in respect of certain actions supporting a genuine trade dispute. Thus an agreement between two or more persons which might otherwise be actionable as a criminal conspiracy, is not punishable provided the acts in question, if committed by one person only, would not be punishable.

The point here is that, under the law relating to conspiracy, some acts which would not be criminal if done by one person may be so if done in combination by a number of persons: for the good reason that acts, relatively harmless when perpetrated by an individual, may become anything but innocuous when done by a number. The law relating to riot and unlawful assemblies is not affected.

Generally, a person who becomes unemployed because of a strike or a lock-out caused by a trade dispute at his factory, workshop, farm, etc., is disqualified from receiving unemployment benefit during the stoppage. However, this is subject to a number of exceptions. If he becomes regularly and genuinely employed elsewhere, or if he can show that he is not taking part in, financing or interested in the dispute, he remains eligible. But he must also show that he does not belong to a grade or a class of workers who are taking part in, financing or interested in the dispute. These provisions are especially important in the case of 'wildcat' strikes. (The position is the same as regards assistance grants except that the dependants of the person disqualified are not affected.)

An important section in the *National Assistance Act* provides that a person does not commit the offence of persistently refusing or neglecting to maintain himself or other persons by reason of actions in furtherance of a trade dispute. In other words, workmen obeying a call to strike cannot be accused of neglecting to maintain their families.

Last straws

The Government has very wide powers to deal with these under the *Emergency Powers Act, 1920*. If anything is done or threatened by any person or body of persons which is likely to interfere with the distribution or the supply of such essentials as food, water, fuel, light or transport to such a degree as to threaten the public or a substantial part of it, the Government may proclaim a state of emergency.

The proclamation, which may not last longer than a month, although further proclamations may be issued, gives power to make regulations. Once issued, the widest powers may be conferred on Ministers, government departments and others. These regulations may relate to the preservation of peace and public order. They may provide for ensuring the availability of the necessities of life: food, water, fuel, light and transport. Rationing may be introduced, prices controlled and practically any other matter covered which can be said to be essential to public life and safety. As a last resort, the Government may take over industrial plant and warehouses.

THE HUMAN AGE

—BIM Midlands Conference—

by John Samson

GIVEN half a chance, Everyman and his brother have an eager craving to influence people; and in industry, executives of all grades are being compelled to take part in this reciprocal communication. Evidence of this commitment to the 'human age' dominated last month's Midlands Regional conference of the BIM. The rally (The Role of Management in an Industrial Society) was planned for general management—the traditional devotees of cost accounting, production planning, systems control, etc.

What did they get this year at Leamington Spa? Morale—from Mr. R. R. Hopkins of Vauxhall Motors; Communication—from Mr. J. W. Humble of Urwick, Orr & Partners; The Worker's Wants—from Jack Cooper, National Union of General and Municipal Workers; and a session on training from John Wellens who runs his own educational organization.

A foretaste of the main day's proceedings was given to me at a reception the previous evening when John Wellens said, more as a threat than a lament: "Nobody ever agrees with what I say." The controversial issues raised during the Friday sessions would have caused most of the other speakers to express the same feelings. Comments by Mr. A. H. Frampton, managing director of Hawker Siddeley Industries Ltd., were challenged (not openly, of course) by subsequent speakers. Talking trade unions, he thought that in Great Britain, there was not the same degree of responsibility in local union representatives as he had experienced in the United States.

It was for Jack Cooper, national chairman of one of the big general unions, to propose that frequently the influence of the shop-steward was more significant than national negotiations. After all, he observed, the worker's real remuneration is affected more by the local bargaining of bonus and piece-work rates than it is by the nation-wide fixing of minimum wage rates.

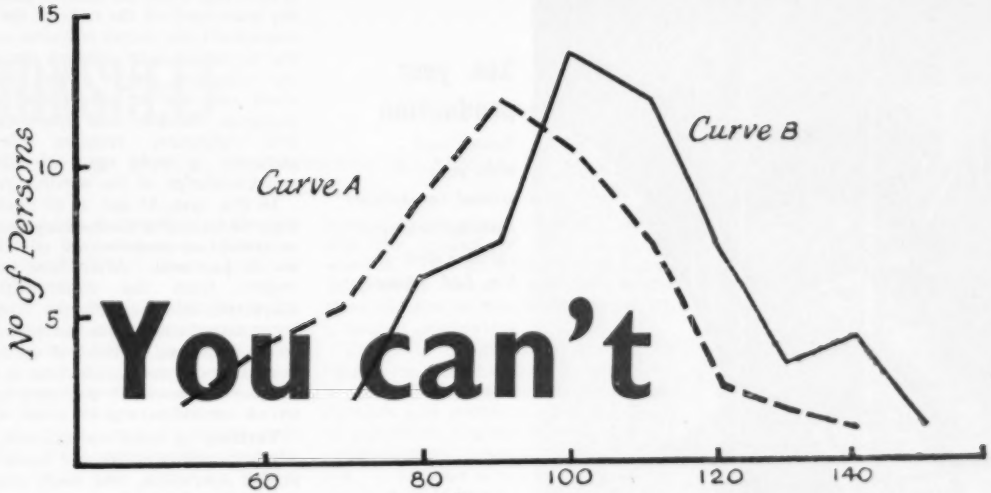
A further observation by Mr. Frampton must have raised John Wellens' blood-pressure a good many points. He thought that, in common with the Americas, Great Britain had accepted the undermining of old-fashioned craftsmen, "substituting the semi-skilled operator." Whatever emphasis we place on our training schemes, John Wellens says that the system as described by Mr. Frampton is just what is wanted. "If a man is in a trade for which there is no craft union, he automatically becomes classified as a semi-skilled worker . . . the most serious feature of this lunatic system is that, if a lad is in a so-called skilled trade, he gets training, otherwise not."

It was unfortunate, perhaps, for Mr. Frampton that, immediately after his own talk in which he had urged that Britain should do better in cementing labour/management relationships, the plenary session should have been given a rousing performance by Vauxhall's master of plain speaking, Mr. R. R. Hopkins. Though it may sound glib, this expert's preventive medicine for labour troubles is: "Don't let your challenge degenerate into a problem".

Mr. Hopkins, generally reluctant to offer the Vauxhall plan as an ideal model for every single factory in the country, came out on this occasion with one universal rule: "To maintain morale . . . is no job for just a limited number of personnel specialists, or even senior managers endowed with a social conscience. The whole management team must understand, accept and act upon a validated and appropriate company-wide philosophy."

This tri-partite process (understanding, accepting and acting upon) also figured as the end-product in Mr. Humble's paper on industrial communications. The absence of good communications, he maintained, is responsible for more friction and loss of managerial effectiveness than any other factor. What is an essential foundation? A sound organization structure, so that a message retains its impact; a desire by management to pass on information; and the development of the proper climate of opinion in which communications will really work. Their acceptance, he feels, depends upon five factors: making them clear, choosing the most appropriate media, maintaining consistency throughout, being selective in content, and planning the timing of messages.

Lord Piercy drew this general inference from the conference as a whole: "A balance has somewhere to be struck between individual interest and individual egotism and the common good, between regulation and planning and democratic freedom, including freedom to organize".



You can't Over-train

by A. J. Chanter*

TODAY, as a result of the Carr Committee's Report, there is probably a better awareness of the need for improved training in industry than ever before. Most of the emphasis has been placed on the training of newcomers to industry—apprentices and operatives— and little is known of the outstanding results which can be achieved by applying modern techniques of analytical training to re-training established operatives.

Over-all output in a large number f manufacturing processes still depends primarily on the skill and dexterity of the 'semi-skilled' operatives on key operations. Radio-valve assembly, textile manufacture, most of the finishing operations in the clothing industry, carpet making, light engineering assembly, and inspection operations of all kinds are typical examples. An increase in the average level of skill of operatives on jobs such as these invariably leads to better machine utilization and a greater factory output.

Spread of skill and performance. Usually the performance and individual output of any group of operatives where skill is a vital factor is never uniform over the group but follows a pattern similar to that indicated by Curve *A* above.

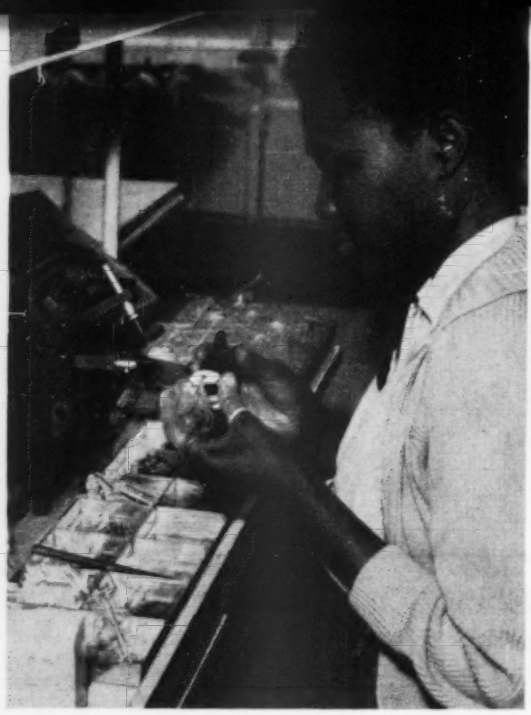
This curve shows the distribution of performance of 15 sewing-machinists before re-training. The average was 87 per cent of the norm with some around 60 per cent and others as high as 140 per cent. This difference in performance is not primarily a question of effort—although this plays its part especially with those who had given up hope of improvement—it is one of skill; and if this could be improved for (say) the lower third of the group, a substantial increase in output would automatically follow. Re-training, using the now well-known techniques of the analytical method of training, does exactly this.

The procedure in every case is basically the same. The operation is carefully analyzed and training exercises established. Operatives willing to be re-trained are then carefully studied and their weak points noted. Increased skill means the elimination of bad habits and of incorrect movements caused by previous lack of training, and their replacement by correct methods and a smooth rhythm pattern. In the re-training, special attention is given to these points and enthusiasm is aroused and maintained by individual attention and the use of target exercises and progress charts. The normal individual improvement in output which results ranges from 15 to 40 per cent, the higher figure generally from operatives of many years' experience.

If the performance of one-third of the operatives in a section is raised by 30 per cent, one would expect the output from the whole section to increase by about 10 per cent. In practice, this is exceeded since it has been found that if the performances of the 'lowest third' increase substantially, the other operatives also improve on their previous best by from 5 to 10 per cent. The reason for this is not so obscure as might be thought. Operatives who have always prided themselves on being better than their fellows are determined to maintain this distinction and increase their own outputs in consequence.

Curve *B* shows the performances after re-training. Re-training has one further worthwhile result. Labour

*Mr. A. J. Chanter is a director of industrial relations with Personnel Administration Ltd., London



See your production

figures soar with your second (analytical) training course (M-O Valve Co. Ltd. photo)

turnover is highest with those whose skill is least, and an improvement in skill leads invariably to better morale and reduced labour turnover.

Radio-Valve Assembly. Fixing in position the tiny components which make up the 'heart' of a radio valve, requires very skilful spot-welding, good eyesight, high finger dexterity, careful hand and eye co-ordination and reasonable intelligence.

The learning-time for recruits is around 20 weeks to reach barely 80 per cent of the output of a really skilled assembler and with the old methods of training many do not progress much further. Because of this, the range of performance, even amongst a group of experienced operatives, is very wide and an improvement in skill amongst those below standard is an important contribution to productivity. In one firm, the average increase in output from re-trained assemblers was 30 per cent and labour turnover dropped to one-third.

Knitwear. An interesting case is that of the knitwear manufacturer who subjected the new methods of training to perhaps the most severe test they have yet had. One of the most efficient firms in the industry, its working conditions and manufacturing methods are outstanding and they have operated a training centre for 'green' labour for many years (not using the analytical method). For a demonstration, they selected a section with five operatives on sewing-machine work, all fully experienced and all achieving high performance figures.

The procedure used was the same as previously outlined, and with the willing co-operation of the girls, after three weeks an average increase in performance of seven per cent was achieved. This increase may not appear spectacular but since it was entirely due to improved skill from really high-performance operatives, the result was most satisfactory. Eventually, over 100 experienced operatives were re-trained, and in addition all new recruits were put through the full training procedure.

Twelve months later, the previous labour turnover rate of 55 per cent was down to 36 per cent; and the cost of training a new sewing-machinist, previously evaluated at £100, dropped to £54.

Carpet Making. A key operation in the process of carpet making is known as 'spooling'. The spool is a horizontal spindle, 6 ft to 8 ft long. The operation consists of winding on to the spindle, side by side, the various lengths of coloured yarn used for making the variegated pattern of the carpet. The sequence of the colours is such that when the spool is fitted into the loom (and all the ends of the yarns connected), the carpet is woven according to pattern. In winding the spool, the operative works from a colour chart and has to ensure the correct sequence, tension and even winding. The operation requires alertness, dexterity, a wide span of attention and knowledge of the winding process.

In this case, 45 out of 60 operatives were re-trained with resulting increases in individual performance of from 20 to 40 per cent. After four months, output from the department has increased by over 20 per cent. A secondary benefit, due to re-training in an improved method of cutting off surplus ends, was a reduction in waste of yarn of some 40 per cent leading to an annual saving of about £7,000.

Textiles. In tweed manufacture, warp winding, weft winding and weaving are skilled operations; and many cases are available of improvement obtained through re-training experienced operatives. In an old-established industry, with generations of tradition behind it, there is often a strong resistance to change. This was particularly the case in a medium-sized mill with a high reputation which was expanding and wished to increase output by training.

A training centre was established for new entrants and the previous periods of training reduced to about one-third. Re-training warp and weft-winders produced increases in productivity of from five to 37 per cent, but some resistance to re-training was experienced from the weavers. Finally, four operatives out of 20 in the section agreed to try out the new methods and increases of five to 15 per cent were obtained after four days. This experience illustrates the basic fact that re-training, to be successful, must be a willing process on the part of the individuals concerned. Without this agreement and desire to participate, results are meagre and do not last.

Oversea. All the cases mentioned occurred in Great Britain. Similar results have been achieved on the Continent and in the U.S.A. Indeed, in one American hosiery company, the decision was taken to give every operative a short re-training course, whatever the job. The comment of the president of this company is illuminating. "We have concentrated hitherto", he said, "on making our machines and our techniques the best in the world. It is now time we considered whether we are making the best use of them. That depends on the skill of our operatives".

BOOKSHELF

SOCIOLOGY ★ HUMAN ENGINEERING ★ RESEARCH ★ LABOUR RELATIONS

British Industrialists, Steel and Hosiery 1850-1950, by Charlotte Erickson. *Cambridge University Press, 42s. post paid.*

THIS IS a survey of changes in the social origins and career patterns of leaders in two British industries, with biographies of about a thousand managing partners and executive directors in the hosiery industry of the Nottingham area and the heavy steel industry. Wherever possible, comparisons are made with American studies in industrial leadership and with recent investigations in this country.

Miss Erickson tries to form an empirical basis for generalizations about leadership during the century in which the British role in world manufacturing was transformed from that of quasi-monopolist to one of competitor with other countries.

Since Nottingham hosiery was not made in factories until the second half of the 19th century, it has been possible to study characteristics of an entire group of merchant capitalists, the pioneers of the factory system and the first generation of factory producers. Similarly, the introduction of the Bessemer and open-hearth steelmaking processes are traced, firm by firm, to distinguish the characteristics of those in the forefront of the new technology.

The final chapter carefully examines the influence of the public company on management recruitment.

Research Techniques in Human Engineering, by Alphonse Chaparis. *The John Hopkins Press, 45s. post paid.*

HUMAN ENGINEERING deals with ways of designing machines, operations and work refinements so that they match human capacities and limitations.

The Second World War defined this area of technology as a separate discipline. Radar, aircraft, rockets, computers and other instruments produced for the war introduced new complexities for their operators. Guesses, intuition or common sense were no longer adequate for solving many problems of the human use of machines.

To match modern machines to their human counterparts, engineers had to seek the counsel of many kinds of scientist. That growing body of knowledge about man as a machine-user, or as an element in man-machine systems, is human engineering.

This is a handbook to the subject where, for the first time, we can study a compilation of the operational methods and problems from the fields of industrial engineering, psychology, authropometry, physiology and statistics. It presents a new background for the student of human engineering, and it should impress everyone engaged in operational research, systems engineering, experimental psychology, scientific management as well as personnel development.

Understanding Labour Problems, by D. M. Young. *McGraw-Hill, 48s. 6d. post paid.*

AS UNIONS have increased in strength, the position of the industrial relations expert has become steadily more important; and this union strength is reflected in costs, prices, competitive position and profit—the basis of economic existence. Thus, almost every executive is directly dealing with some aspect of unionized activity, which he must attempt to understand.

Chapters are devoted to employers' associations, bargaining, wages, fringe benefits, the right to strike and international ideas of organized labour. There is an abundance of fact and anecdote, and actual events are regularly cited as illustration.

Science in Industry, by C. F. Carter and B. R. Williams. *Oxford University Press, 22s. 6d. post paid.*

THE FIRST part of the book contains suggestions for management on the communication of scientific knowledge, the use and conduct of research and development, and the finance of innovation.

In the second part, ways are discussed by which the Government can speed industrial progress by supporting research, by appropriate education policies, taxation, credit, foreign trade and the control of restrictive practices.

Foreman: an annual for supervisors. *Industrial Welfare Society, 3s. post paid.*

A BRIGHT 64-page booklet containing several brief features of general interest. Notably—

"The problem of stress in industry", by Mary Murphy. "Interviewing the applicant", by William Durham. "What employees really want", by E. M. Hargreaves.

There are also two useful sections on retirement counselling and on improving relations in small firms.

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Protection for the whole (or part) man, provided by D.M. Reflective Products (left) and Pyrene Panorama

Safety off the Peg

At Scarborough

Preview of RoSPA Exhibition

by Stephen Gregory

WITH the biggest trade exhibition for 11 years, the 1960 RoSPA National Industrial Safety Conference will have a new look as well as a new theme. The growth of this annual display is strong evidence of the manufacturers' desire to keep pace with new developments in safety techniques and in legislation. They are turning out materials and devices that help combat the effects of new hazards such as ionising radiation and excessive noise.

From our selection of the interesting and significant equipments to be displayed at the exhibition, visitors will be able to plan their itinerary and make certain that they do not miss any noteworthy items.

A most important exhibit will be a special form of lead-protected screen for industries where personnel risk exposure to radiation. This appears on the Premise Engineering Company's stand. Anybody who is worried about the Draft Special Regulations recently issued by H.M. Stationery Office may find this a satisfactory answer to immediate problems.

Heat radiation is more easily

◀ *Window cleaners or quarry men, can rely on the Irvin SH6*

◀ *Resistalex (Chichester Rubber) gloves prevent abrasion*

◀ *The Commando sole withstands 320° F in a pyrometer test*

repelled—but only if it is reflected. The protective clothing that D. M. Reflective Products are exhibiting performs this function with up to 95 per cent effectiveness. In aluminized weave asbestos, it will also stand up to direct flame for a limited period. Of course, there will be more conventional types of protective clothing on view, such as a Jeltek donkey-jacket, Duratect grease- and oil-proof aprons, and Arthur Miller Ltd.'s materials.

For the head

The increased publicity given to the activities of the Noise Abatement Society and the pressures trade unions are applying with regard to noise in industry must soon oblige safety officers to look for means of combatting this menace to efficiency and good health. The Rüedi-Furrer ear-defender device, to be shown by Safety Products Ltd., protects the delicate human ear whilst allowing the spoken voice and normal calls to be heard.

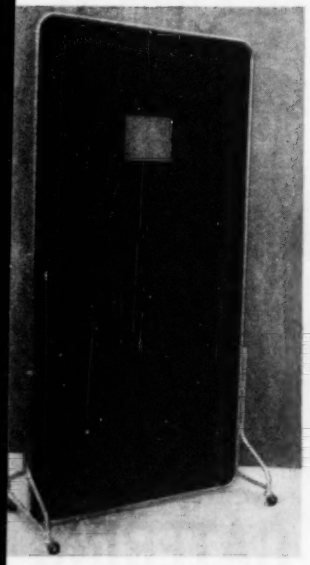
If all your workmen look alike in their safety helmets, identification should be easier if they wear different colours. Mine Safety Appliances will be showing their Skullguard versions in colour. Malcolm Campbell (Plastics) Ltd., with their Texolex range, offer wide-brim helmets that increase protection for the neck and ears as well as for the head.

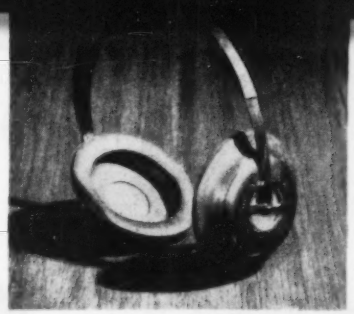
If it is eyes you are worried about, there will be a variety of protective goggles to choose from. George Angus & Co. Ltd., from Newcastle, are giving a first showing to their Cleargaze plastic goggles which definitely provide good, all-round vision. Pyrene-Panorama, too, will be displaying goggles, but they will also include a number of combination helmet/faceshields designed to suit special requirements. Among these will be the 8-in., gold-treated, acetate, heat-reflecting screen, swivel-mounted on a Sureguard aluminium helmet. British Celanese will naturally be represented as one of the leading suppliers of acetate sheeting for many faceshields.

The complete range of safety harnesses, made by Irving Air Chute of Great Britain, will be on show, including a new combination industrial overall and harness for personnel working in dirty conditions where falls could occur. Man-made fibres, grey outside with a red inner core, are woven into a new Pakawa Dualon harness. This 3-ton strong belt sheds half its load on to the red core which —even when it shows through the grey (to indicate dangerous wear), is still twice as strong as the average leather belt.

Hands, knees

New developments are taking place in safety-glove manufacture. In particular, the exhibition will include two improved and extended designs. Chichester Rubber Co. Ltd., makers of the Resistalex range, have given a wider 'waist' to their handwear. They have also eliminated back-finger reinforcement which means that there should be greater comfort and manœuvrability for the wearer's





◀ *Ear defenders (Safety Products) are the universal defence against noise*

In some workshops, ▶ *Nuway non-slip matting seems essential*

◀ *Radiation is screened by resin-bonded plywood and lead sheet (Premise Engineering)*

fingers. James North & Sons Ltd., on account of their success with the North Jomac, are expanding this line to include mitts and sleeves—both made in the same loop-pile fabric. Walkers (Century Oils) Ltd., are showing for the first time their Centrex skin cleanser which recently gained the certificate of the Royal Institute of Public Health and Hygiene.

Knee-boots, such as those exhibited by the North British Rubber Company, are in great demand, but there is still a substantial market for Wilkins & Denton's steel toe-caps (Totectors), and for the Betts & Broughton ankle-support designs. Heat-resistant soles are the prominent feature of the ITS Rubber Co.'s stand, and styling plays an important part in the design of the modern safety shoe—especially in the Plus-Fifty range produced by the Protective Footwear Service Ltd. Among the guarantees by safety-boot makers and distributors, the Co-operative Wholesale Society's offer for Grade 1 products is attractive. They will pay the sum of £5 a week during absence from work in the United Kingdom (maximum period of 10 weeks), if injury is sustained to toes guarded by their safety boots.

And no dust

Respirators and other aids to safe breathing have their own promotion, incorporating the stands of Siebe Gorman, Martindale Electric and Dallow Lambert Ltd. Whether the need is for individual comfort as provided by the Mark IV Compressed Air respirator or for the efficiency of a featherweight mask; or even if the whole factory must be protected by the installation of a compact, filter-cleaned Unimaster dust control unit—the exhibition has something to offer.

The hazards of tripping over conventional duckboards that surround factory machines can be avoided by using Nuway matting. This rubber-slatting will also protect fragile products that accidentally tumble on to a hard floor. Tools that give no sparks—thus saving unnecessary explosions in combustible atmospheres—can be inspected on the Telcon Beryllium Copper stand.

These selected products, plus more conventional and well-tried garments, equipments and services, add up to a remarkable display of the way in which manufacturers are trying to help in the seemingly endless battle against accidents. They are building up a formidable armoury with which industry can protect every worker from head to toe, and every factory from roof to foundations.

This brief guide will be followed by a full report of the Conference linked with RoSPA's 1960 Exhibition (May 27th-29th)

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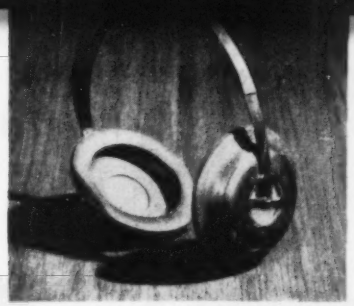

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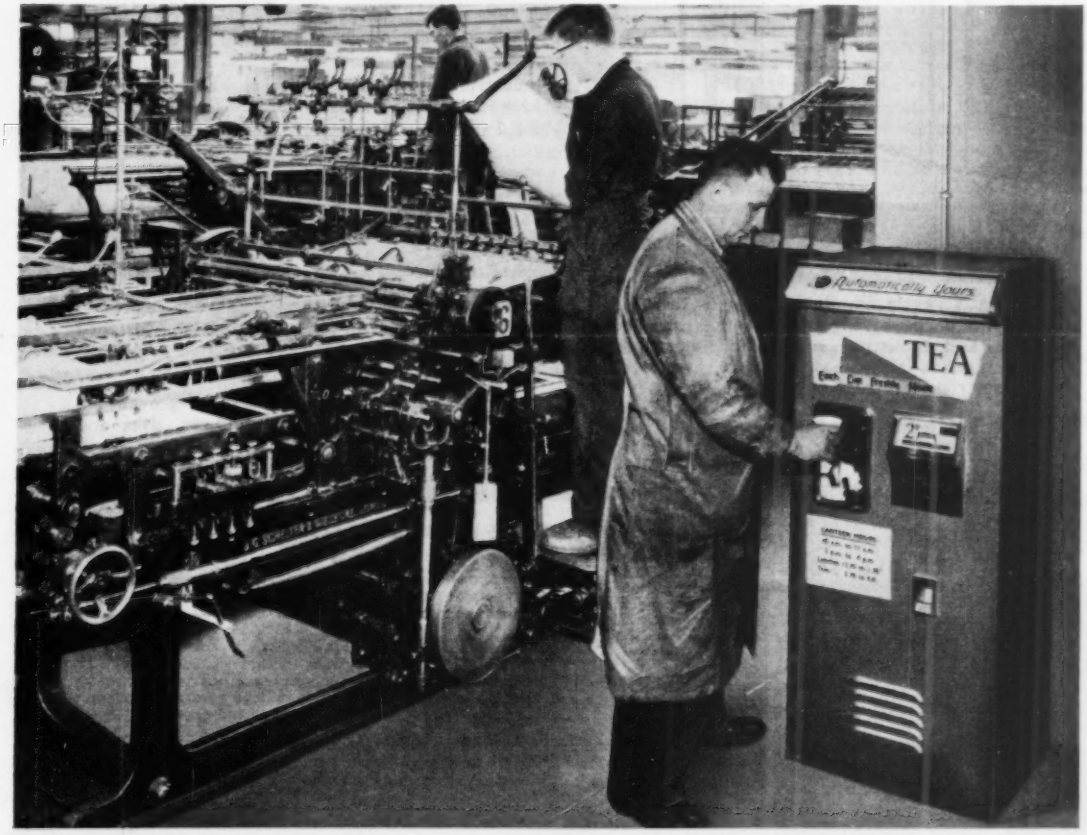
I ran into an old school friend the other day when I was attending a Press Conference at the headquarters of a large industrial organisation. Naturally the conversation reached the 'do-you-remember' stage. On this level I said, "Do you remember those ghastly problems they were always giving us? You know, if two taps fill a bath at *x* gallons per hour and the plug is left out and empties at *y* gallons, how long will it take the bath to overflow? I've often wondered what sort of chap thought those up . . . did he actually sit in a bath or go around leaving plugs out?" "Strange you should mention that. As a matter of fact that's what I do for a living." Good heavens you don't mean you sit in a . . ." "Not quite, but I've similar problems to solve. For instance, take 200 men working in a factory. They have a 15-minute tea break twice a day. What with queuing up and standing round a tea-trolley, waiting to be served, it takes them 20 minutes to have their break. Now 200 men taking five minutes extra, twice a day, means 33 hours lost per day. Multiply that by five and a half days per week, 50 weeks per year at roughly 12s. per hour — and what's the answer?" "You tell me — I was never any good at sums like that." "Well — it's quite simple." he said, leading me towards the latest addition to his factory equipment — a Still's Automatic Tea Vending Machine. I should have realised earlier that Stills had the answer — as indeed they have to most catering problems.



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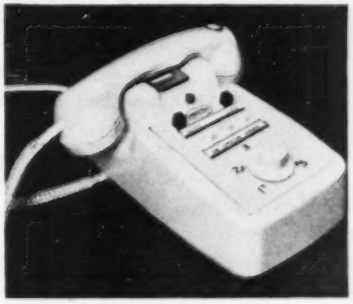
Office Aids

TAILOR-MADE DICTATION

FLEXIBILITY as well as simplicity are outstanding features of the *Agavox* teledictation system which has recently undergone certain improvements. It is designed to conform to the requirements of the user, rather than the user's having to fit his needs to the equipment. For example, the number and disposition of telephones and/or machines can be changed easily. The design is claimed to accommodate increases in the numbers of telephones; movements of individuals within a building; changes in the work load of certain people; allocation of 'priority' machines to specified offices; and the ability to increase the number of machines (or increase them in one department whilst decreasing them in another).



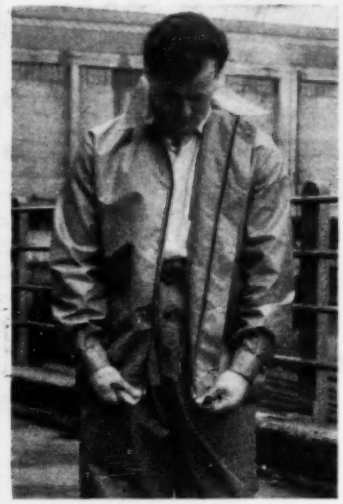
The user can dictate, play back, return to any part of his dictation, mark the ends of letters and corrections on the index strip of the *Agavox*, or call the supervisor. The controls for any of these purposes are laid out on the telephone in an easily seen manner. Aiming at producing a foolproof machine, the makers have paid great attention to the staying power of their system. Even the plastic discs on which recordings are made have been designed for long life: they are said to be virtually unbreakable, easily mailed, and re-usable up to at least 20,000 times.

Enquiry Ref. No. 05/1

CONFERENCE BY 'PHONE

TIME and effort are often unnecessarily wasted by our having to repeat questions or statements given over the telephone, and which we wish to communicate to somebody else in our office. All this is saved by the installation of the *Speakeasy Mark 2* telephone amplifier. It is not attached to the telephone; a plinth is placed under the 'phone appliance and is connected to a small loudspeaker cabinet. Once it is switched on, anyone in the office can hear what is being said.

(Continued on page 45)



'JELTEK' in Industry

Imperial Chemical Industries Limited use 'Hydex' nylon protective clothing by Jeltek for their personnel, utilising the 'Jeltek' Photostatic Branding Process for the faithful reproduction of their well-known emblem. Send for latest Price List and Brochure giving details of the full range of 'Jeltek' donkey jackets, duffle coats and P.V.C. waterproofs, and list of approved stockists.

JELTEK
PROTECTIVE CLOTHING

JELTEK LTD.

GREEN LANE, HOUNSLOW, MIDDLESEX. (HOUnslow 7281-7)

For further details, complete enquiry coupon facing page 52

If you make a call and possess a *Speakeasy*, you can switch it on while the person at the other end is being located. Thus you can continue with your own work without having to continually hold the 'phone to your ear. Similarly, if your caller has to leave the 'phone to search for documents, you can again carry on with your own work until he returns.

The whole unit, powered by a transistorized printed circuit, costs 16 guineas and is guaranteed for a year. It is important to note that, at present, the *Speakeasy* is designed for use only with the type of telephone illustrated (GPO type No. P.L. 48/2) or with intercom. telephones of exactly the same shape.

Enquiry Ref. No. O5/2

RECORDS AT A GLANCE

EASE of access, simplicity of principle, and economy of space: these are probably the three first essentials of any records system. They all appear to be incorporated in the latest improvements of the *Visipost* visible record system which is mobile as well. All the titles and one column of information on each card can be seen at a glance, and automatic 'out' signals facilitate replacement of cards. Naturally, this goes a long way to reducing the numbers of mistakes through misfiling. There is no complicated mechanism for keeping the cards in their place, thus they are removed for consultation

or making-up with ease: you simply lift them out. Apart from application for personnel records, the *Visipost* can be used equally well for order records, transport fleet control, maintenance service and production control costing. The model we illustrate is the floor-standing *125C*.

Enquiry Ref. No. O5/3

MOBILE FILING AID

THE tiring and time-wasting business of walking backwards and forwards from desk to filing cabinets is simplified by the introduction of this mobile sorting and filing unit with adjustable top. Filing can be stored in one of the

250 divisions of the unit, until office staff wish to put it away in its permanent cabinet. This is yet another item which removes material from desk tops where they are normally allowed to take up valuable space and slow down the rate of work. Prices, including purchase tax, range from £24 10s. to £33, and the maximum capacity of the unit is 250 compartments.

Enquiry Ref. No. O5/4

HALF-TONES ON STENCIL

LEAFLETS, posters, plans, maps, music—even half-tone pictures—may be cut onto stencils by using the *Stencilograph 55* apparatus. Completely uncomplicated in principle, this device may be used by personnel with little training. It operates by perforating the stencil at the rate of 3,000

strokes a minute, and can be used for cutting two stencils at a time. Although it is electrically controlled, the *Stencilograph* will not continue working unless it is in the operating position: when it becomes horizontal an automatic switch turns it off.

Three types of head are supplied with the instrument: thick, medium and thin. This means that by using dots of various thickness, different densities in the composition of a picture can be reproduced. The apparatus is supplied in its own wooden case which contains full operating instructions and the spare heads. It is obtainable for either 110 volt or 220 volt supply, and costs 10 guineas—with a year's guarantee.

Enquiry Ref. No. O5/5

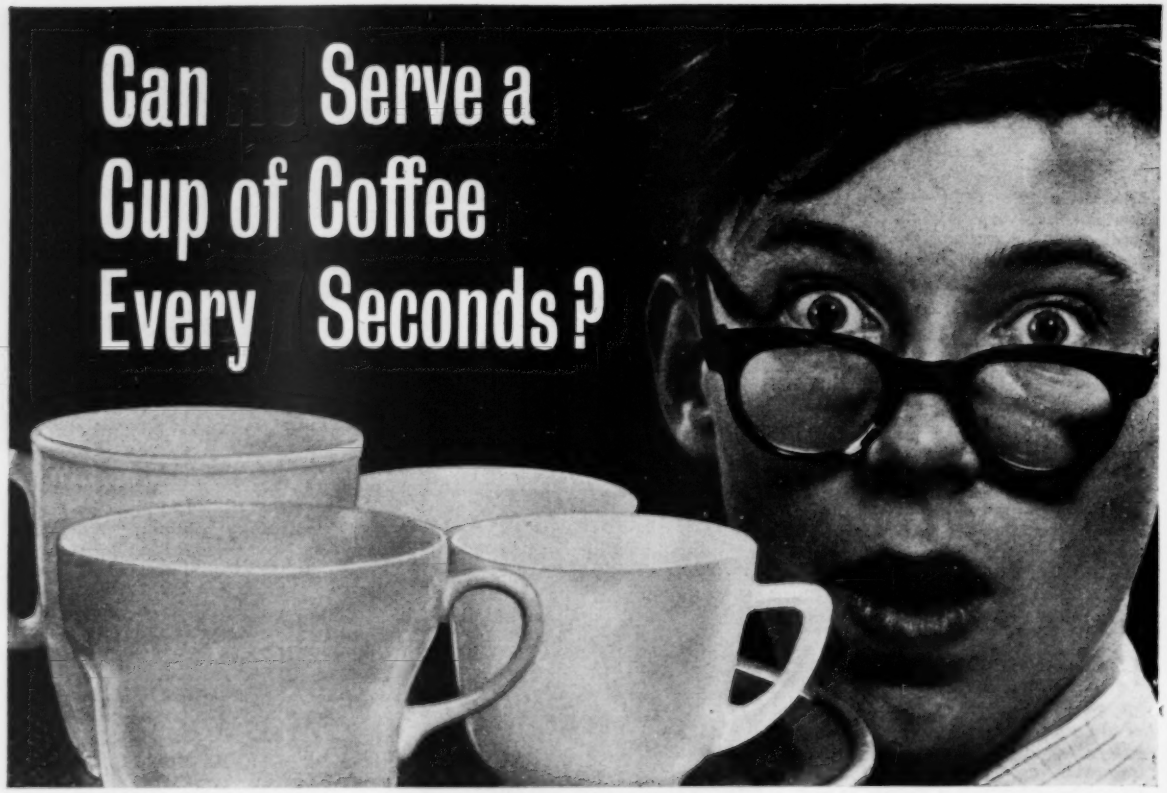
Heating

NO INSTALLING PROBLEMS

THE improved design of these two new oil-fired space-heaters means that they occupy less floor space and that they present a more attractive appearance. To be known as *Models 45* and *75*, they replace the makers' *Models 30* and *50* and could well be used to supplement existing heating systems that are overloaded because of expansion. The heaters work on the high/low fire principle, according to the demands of the controlling air thermostat. After initial, manual lighting, they will continue to operate 24 hours a day with a minimum of attention.

These heaters are designed to make installation as easy as possible; electrical wiring consists only of connecting mains and thermostat wiring to the switch-box on the heater. All that is

(Continued on page 47)



Hotspa can! No Fuss-No Mess-No Delay

AUTOMATICALLY . . . ROUND THE CLOCK the Ditchburn Hotspa Drink Vending Machine can serve a cup of coffee or tea every 7 seconds with a capacity of up to 1,000 cups at each filling, in a floor space of only 2′ 1″ × 2′ 4″. More than that, Hotspa means goodbye to messy urns and trays. Goodbye to those annoying delays before, during and after the tea-break.

Ditchburn Hotspa and Colespa give a choice of seven hot or cold drinks served speedily to a consistent quality in hygienic disposable cups. Because of this, and their record of reliability, Hotspa and Colespa are the most-used drink vending machines in the world.

A Ditchburn client can have all-in service too, service that ensures a constant supply of refreshing drinks with no trouble to management or staff—the operator deals with everything. Why not write today for details, it's as simple as that !

HOTSPA '460' A fully automatic machine supplying a choice of seven delicious hot drinks—tea or coffee four ways, with or without milk, with or without sugar, plus hot chocolate and soups.

HOTSPA '360' The twin machine to the Hotspa, but serving a choice of seven refreshing ice-cold drinks such as orange, lemon, lime and cola, both sparkling and "still".

You simply dial your choice, insert a coin and the rest is pure enjoyment.

DITCHBURN

To DITCHBURN VENDING MACHINES LTD.,
Dock Road, Lytham, Lancs.

Please send me a copy of "Automatic Vending—The Ditchburn Way," and full details without obligation.

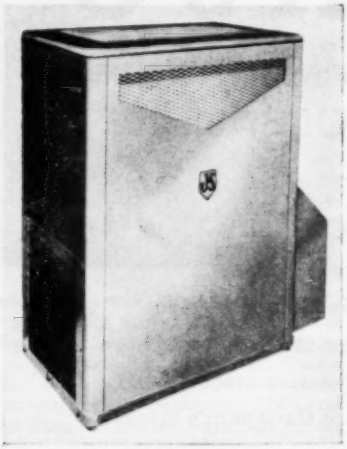
Name .....

Address *MPM/3*

DITCHBURN VENDING MACHINES LTD., A member of the Ditchburn Organisation

EQUIPMENT MARKET CONTINUED

For further details, complete enquiry coupon facing page 52

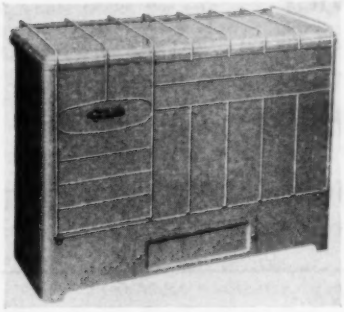


needed for the final connection to compression fittings on the burner unit is some small-bore copper pipe. Maximum heat output is claimed to take only 8-10 minutes after the initial lighting. *Model 45* has a capacity of 45,000 B.T.U's an hour; and for *Model 75* this is increased to 75,000 B.T.U's.

Enquiry Ref. No. H5/1

ECONOMY WARMTH

TO prevent chilling down-draughts, a new low-level (21½in. high) *Nightstor* heater has been introduced to stand under modern sill windows. Like others



in the same range, this model requires a minimum of floor space; a ventilated back panel enables it to be placed against the wall. This 1-kW heater complies fully with the EDA recommendations, and consists of a sheet-steel casing finished in light hammered bronze in which are mounted centrally placed elements, surrounded by heat-storing blocks. It uses electricity at night, when low-cost, 'off-peak' tariffs are available.

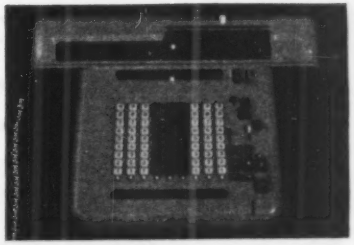
Enquiry Ref. No. H5/2

It is hoped that firms with new products for better and safer working in industry will continue to send details to the Editor. In this way we can maintain the news value of our comprehensive Equipment Market—and continue to assist the great number of our readers who are using this free Enquiry Service.

Efficiency

REDUCES NOISE

PROMINENT among the many attractive features of a new range of automatic desk calculating machines (*Diehl V*) is that they are considerably quieter in operation. This alone should assist in the acceleration of figure production. Other characteristics of the machine include a completely new, stepped keyboard, plus special checking registers which stimulate the faultless entry of figures. A raised 'plus bar' helps touch adding and subtracting. There are also self-explanatory 'multiply' and 'equals' keys. Sums or products can be transferred to the keyboard or the multiplier register, which



is claimed to result in further time-saving as well as eliminating the common errors of copying figures. For the benefit of statisticians, the machines are fitted with automatic squaring, e.g. to square 99, the figures are set into the keyboard once only, whilst the machines carry out the squaring operation in two revolutions.

Other features include a universal electric motor for operation on AC/DC current 110-250 volts, and, if required, a specially designed trolley for accommodating the machine beside the desk. There are four different models in this range (we show the *VSR*), with prices from £268 to £458.

Enquiry Ref. No. E5/1

COLOUR-LABEL CODING

A SIMPLE and effective method of labelling stock, shelving and many other forms of factory and office equipment is with *Presson* units and *Handi* characters. *Presson* is a strip of plastic, measuring 6 in. by 1 in., with a self-adhesive backing. Into this strip are inserted typed cards or *Handi* characters—plastic letters and numbers in black on a white background. The cards or letters are gripped by the turned down edges of the strip. A transparent strip (plain or coloured) can be inserted, when the phrase or

(Continued on page 49)

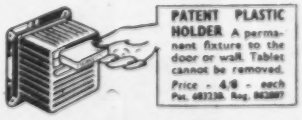
"G" BLOCKS FOR GENTS' CHANNELS

IMPART FRESHNESS TO URINALS
INSOLUBLE IN WATER
ABSORB OBNOXIOUS ODOURS

2 doz. 117/- 6 doz. 61/- 3 doz. 31/-

AIR PURIFIER TABLETS and PATENT PLASTIC HOLDERS
FOR ALL TOILETS

Perfect deodorizers
Purify atmosphere
12 doz. 117/-
6 doz. 61/- 3 doz. 31/-



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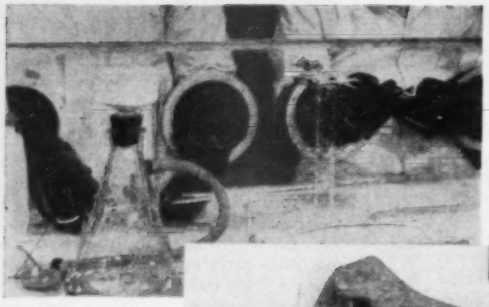
Carriage paid on all orders over £5

A product of research...

DUCKHAM'S A·S·C



INDUSTRY'S FIRST AND FINEST HAND CLEANSER

1 EFFICIENCY

Duckham's research on skin cleansers and protective barrier creams is unceasing. Unique radio-active tracer techniques are Duckham's latest methods of evaluating cleansing efficiency.

2 EXPERIENCE

Duckham's A.S.C. is in use at thousands of factories throughout the country. Public utilities and Government departments are regular users. Employees welcome the provision of a safe, speedy and effective cleanser.

3 SERVICE

Specialist advice freely given on dermatitis problems, supported by films, staff training and lectures. Details of dispensing methods, literature and samples for factory trial are supplied on request.

For further information please write to:-

ALEXANDER DUCKHAM & CO. LTD., LONDON, W.6

Manufacturers of Hand Cleansers, Barrier Creams, Liquid Soaps, Detergents, Disinfectants and many other cleansing products.

For further details, complete enquiry coupon facing page 52

individual words have been framed: this will both protect the lettering and also act as an additional colour code.

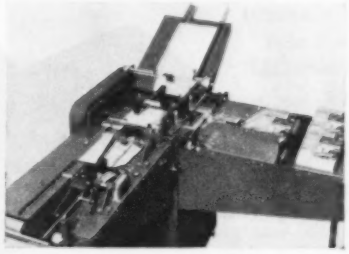
A complete set (No. 2UHL) costs 30s., and includes 24 *Presson* units with insert cards, transparent filters and 120 *Handi* characters—assorted letters or numerals. Spare units can later be bought for 9s. 3d. a dozen; and characters are obtainable at 4s. a fount (consisting of 60 assorted letters or numbers).

Enquiry Ref. No. E5/2

AUTOMATIC MAILING MACHINE

IF you despatch the house journal, company report, or any other literature to your employees, the *Bradma* magazine inserting machine may well help you to overcome the many problems associated with getting material to its destination quickly and on time. The magazine and envelope feeds are both automatic, and are designed to allow for the continuous loading of materials whilst the unit is in operation. Magazines are stacked on the conveyor band which feeds the bottom one through a micrometer gauge, ensuring that only one item at a time is introduced to each envelope.

Envelopes are supplied with a 'Safety Tuck' already in position, with the opening on the long side through which the magazine is inserted. This makes certain that they conform with business postal-rate regulations. Once the magazine is in the envelope, the whole passes through a sealing unit which turns the flaps and seals the envelopes. An electric counter then keeps a permanent check on the numbers passing through the machine. It



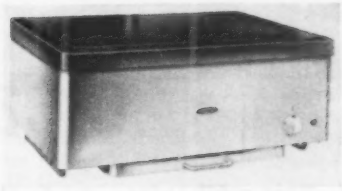
is possible to pack and seal up to 3,600 copies in an hour. Envelope sizes can be used from 8in. by 5in. up to 12½in. by 9in. Magazine sizes can vary from 7in. by 4¼in. to 11in. by 8½in., and from four leaves thick up to ¼in.

Enquiry Ref. No. E5/3

Catering

GRILLS GALORE

VISITORS to this year's Hotel and Catering Exhibition who were interested in the prototype of this new griddle plate, capable of producing up



to 400 hamburgers an hour or 12 chops every ten minutes, will now be able to acquire one for their canteen. It is constructed of heavy cast iron, ground to a smooth surface, and heated by elements on the underside which give a uniform heat distribution. The working temperature is maintained by a simmerstat switch with pilot light. Surplus fat will drain away into a removable drip pan via a groove cast into the plate. Selling at £29 9s., the 2½ kW griddle plate can be connected to any 13- or 15-amp socket outlet.

Enquiry Ref. No. C5/1

HOT OR COLD VENDER

ON view for the first time, an entirely new ever-open shop was exhibited at January's Hotel and Catering Exhibition. The novelty of this model lies in the fact that hot and cold food are available from the same machine. For example, it is possible to obtain hot pies from one compartment and cold yoghourt or butter from another. The unit sells for £637 10s.

Enquiry Ref. No. C5/2

(Continued on page 51)

MOP BOY

ROLLER WRINGER BUCKET

Powerful wringing action by means of foot pedal
Much quicker than usual methods
Mops last much longer, no twisting, no tearing
Hands do not touch cleaning fluid
No stooping, squeezing, less fatigue
Long rollers take any size mop

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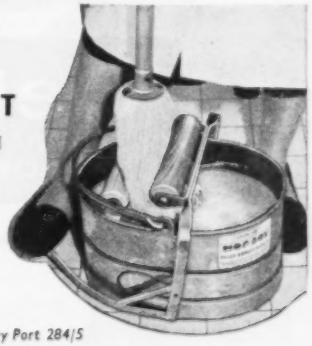
BURRY PORT, CARMS., SOUTH WALES



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SIEBER FOR...
A '7 STAR' LOGICAL CLOAKROOM

- SAVES SPACE
- SAVES COST
- PRESERVES GARMENTS
- ENSURES HYGIENE
- AIRS AND DRIES WET CLOTHING
- REDUCES ABSENTEEISM
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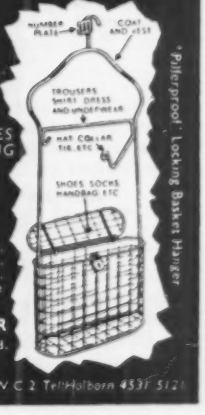

Installed in Factories, Stores, Offices, Swimming Baths, etc., throughout the country.

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clear safety!

This safety vizor, made of 'Celastoid', was smothered with flying molten metal at 1400°C. No metal penetrated.

Your men on dangerous work must be protected. And you are responsible—every realistic consideration makes you so: the Law, your own best interests, your normal conscience. Plan for safety—with safety vizors, goggles, machine guards made of 'Celastoid'.
'Celastoid' acetate sheet is extremely tough—at the same time brilliantly clear. It will not shatter, crack or splinter. It gives a real and substantial measure of safety—and perfect vision. 'Celastoid' is basic equipment for the morale and efficiency of your workers, an essential first step in your safety planning.

protects the man

preserves the skill

Celastoid
TRADE MARK
ACETATE SHEET

Can the 'Celanese' Technical Advisory Service help you with safety problems?
Write for further details to:—

Plastics Division, British Celanese Limited Celanese House, Hanover Square, London W.1. Telephone: MAYfair 8000

Members of Industrial Safety (Personal Equipment) Manufacturers Association

SPE-3

For further details, complete enquiry coupon facing page 52

ELECTRIC PIE-MAKER

NINE hundred pies can be produced in an hour, say the makers of this new *Pie Master* machine. Retailing at £35, it is capable of adaptation to a variety of different uses by fitting one of a number of electrically-heated dies. A special compensator is pre-set to give precise paste thickness and, should wear occur after the machine has been in constant use for a number of years, they can be adjusted in a matter of moments. As for maintenance, the makers suggest a spot of oil

about twice a year which would ensure consistently reliable operation. The ease with which the *Pie Master* can be cleaned is a result of its modern styling. The absence of exterior electrical connections makes the machine hazard-free.

Enquiry Ref. No. C5/3

a special drop-forged swivel ring which replaces the usual hook. The safe working-load is said to be 5 cwt., and this is marked on the appliance. A test certificate is issued with each wheel which is individually tested in accordance with the Building (Safety, Health and Welfare) Regulations, 1948. Other specifications are that it has a 10-in. dia. pressed steel wheel with self-lubricating oilite bearing; that it is suited to ¾-in. dia. rope; and that it is mounted in a strong, welded frame.

Enquiry Ref. No. S5/1

WIND-ON WINDOW

THE fixing of replacement windows in shot-blast helmets has been considerably simplified in this new, air-fed *Saferhelm*. When the outer window becomes marked the operator has only to pull down the next clear section of P.V.C. from the reel cassette.

When the reel is exhausted (it contains enough for eight new windows) it can be replaced in a matter of seconds. Spools cost 3s. 6d. each. It should be noted that there is an inner window which need not be replaced unless it is unavoidably damaged. The price of this helmet and three spare spools is £11 17s.

Enquiry Ref. No. S5/2

CONTROLLED DROPS

DEVELOPED in co-operation with one of the largest mining companies in Sweden, the *Sala* safety block holds 16 feet of steel wire rope on a spring-loaded drum. With normal movement, the rope pulls out and winds up automatically, keeping the rope taut and giving the operator freedom of movement with safety. Any sudden pull engages a locking device and the rope is stopped immediately. But,

because of a friction brake on the drum, there is no jolt transmitted to the man who will stop in his fall after about one foot.

Where it is desirable for a worker to have a limited, safe radius of operation, this can be obtained with the *Sala* block by pulling out only the required length of rope and by locking with a ratchet pawl.

Enquiry Ref. No. S5/3

Safety

ALSO SAVES TIME

APART from eliminating the time and labour normally required for lashing and mousing, this new gin wheel is designed to achieve a high degree of safety. Its unique feature is

Details of other new safety equipments can be found on pages 35-37, where we give advance notice of items to be shown at RoSPA's Scarborough Exhibition later this month.

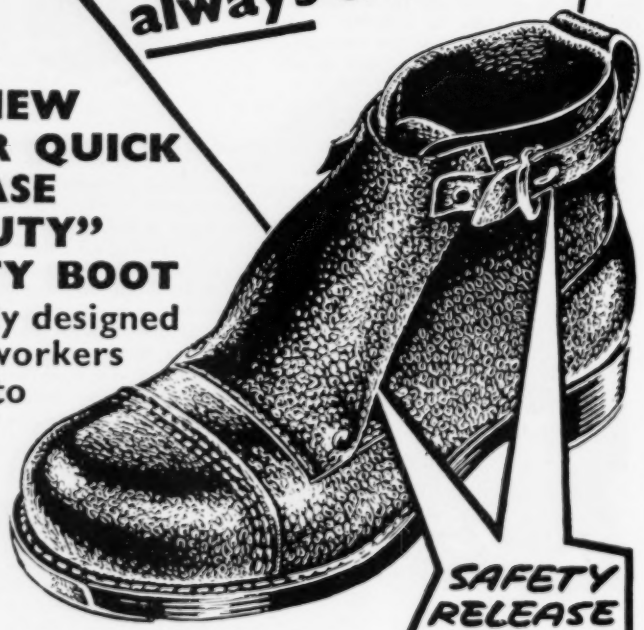
DEPUTY
SAFETY FOOTWEAR
once tried . . . always trusted!

Also THE NEW 'FORGE' MINERS' SAFETY BOOT with the SUPER GRISTLE SOLE AND HEEL

Special soft, flexible full chrome smooth upper Leather for comfort and hard wear. Dressed exclusively in mellow tan, and featuring :-

1. LIP TOE PLATE.
2. SOLID LEATHER INNERSOLE AND MIDDLESOLE TO LET FOOT BREATH.
3. RUST RESISTING CADMIUM PLATED WOOD SCREWS FOR EXTRA LIFE.
4. CLEATS DESIGNED FOR MAXIMUM GRIP
5. CONFORM TO B.S. 1870 and N.C.B. SPECIFICATION PI35

The NEW SUPER QUICK RELEASE "DEPUTY" SAFETY BOOT
Specially designed for all workers having to handle molten metals.



SAFETY RELEASE FEATURES
See these in operation at our animated display.

Available from :
STORES, PITHEAD BATHS, CANTEENS
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AN EXTENSIVE SELECTION OF SAFETY BOOTS AND SHOES SUITABLE FOR ALL INDUSTRIAL REQUIREMENTS ON EXHIBITION

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ENQUIRE FOR SPECIAL TRADE TERMS FROM THE SOLE MANUFACTURERS

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Your Name.....
PLEASE USE BLOCK LETTERS

Position.....

Company Name .....

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Industry or Product.....

Approx. Total of Employees

Less than 100 ☐ tick
100 to 500 ☐ appropriate
More than 500 ☐ square

5-60

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Colours: White, Pink, Saxe Blue, Lilac, Emerald Green, Turquoise, Navy, Primrose.
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STYLE NO. 3542. Short Sleeve.

Dinkum
EFFICIENT OVERALLS

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"CHIRCO" BOX GLOVES
In natural and neoprene rubber to UKAEA and private specifications. Fully tested.

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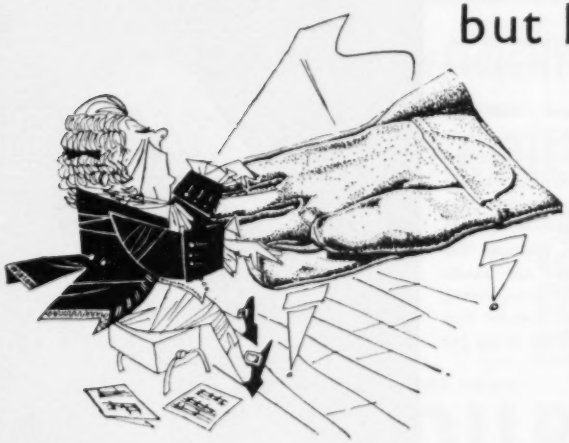

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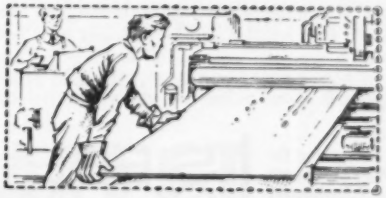

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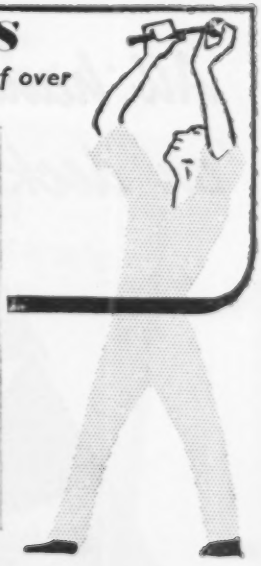

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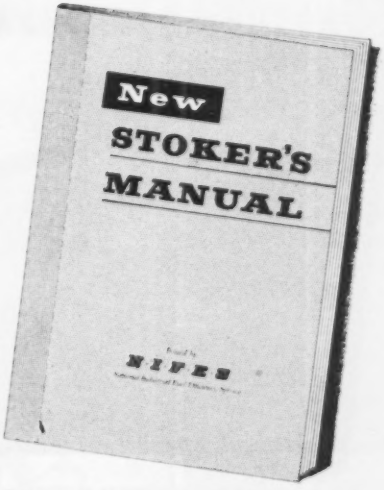

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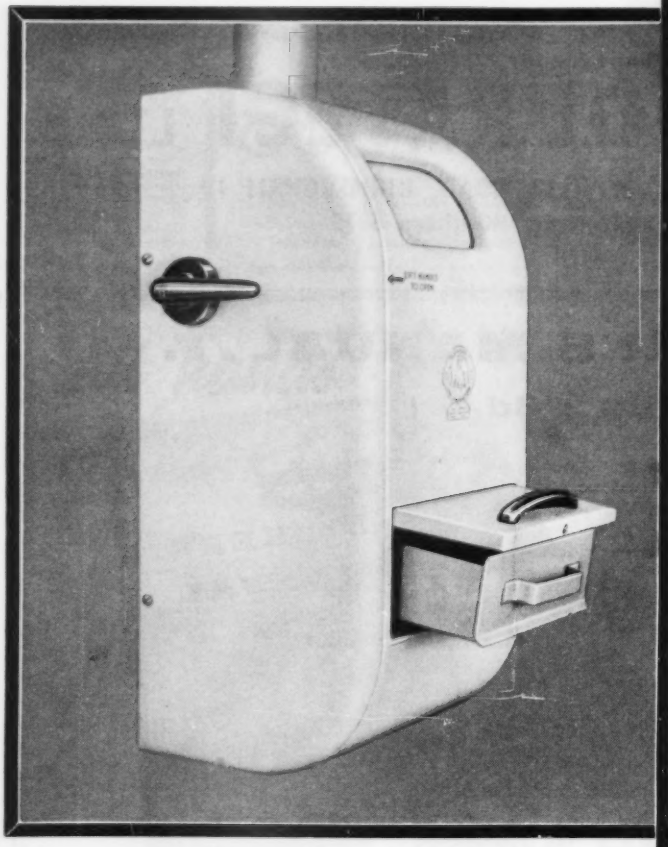

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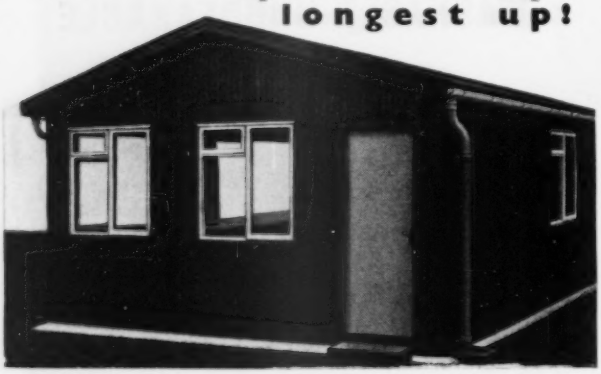

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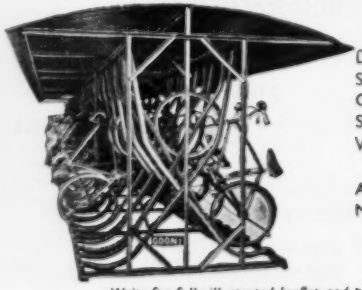

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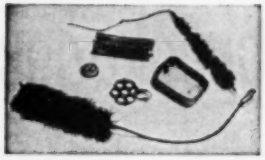
Keep plumbing clear



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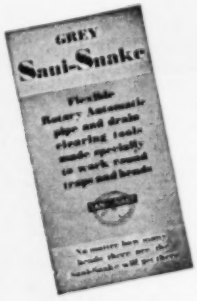

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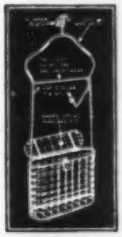

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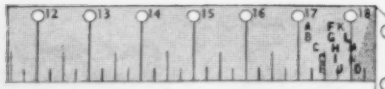

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Cullum, H. W., & Co. Ltd.

SPORTS FACILITIES
En-Tout-Cas Co. Ltd.
Peel, H., Ltd.
Samuel, H.

STAFF APPOINTMENTS
Daily Herald

TIME RECORDERS
Blick Time Recorders Ltd.

TRAVEL
Skyways Coach/Air Ltd.
Transglobe

VENDING MACHINES
Autobars Co. Ltd.
Automat Machine Sales Ltd.
Automatics Trading & Vending Co. Ltd.
British Automatic Co. Ltd.
Chadburns Ltd.
Ditchburn Vending Machines Ltd.
Machine Economy Ltd.
Peter's Automatic Machines Ltd.
Sankey, Joseph, & Sons Ltd.
South Western Automatic Co. (Bristol) Ltd.
Still, W. M., & Sons Ltd.

WALL CLEANING MACHINES
Revvi Ltd.

WATCHMEN'S CLOCKS
Blick Time Recorders Ltd.
English Clock Systems Ltd.
Llewellins Machine Co. Ltd.
Thames Manufacturing Co. Ltd.

WELFARE FACILITIES
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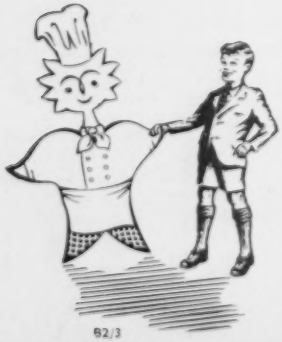

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